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METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

September 23, 1999

Mr. Lester Snow
Executive Director
CALFED Bay-Delta Program
1416 Ninth Street, Suite 1155
Sacramento, CA 95814

Attention: Mr. Rick Breitenbach:

Dear Mr. Snow:

Comments on Draft Programmatic EIS/EIR for the CALFED Bay-Delta Program

The Metropolitan Water District of Southern California (Metropolitan) has received and reviewed the Draft Programmatic EIS/EIR (Draft PEIS/EIR) for the CALFED Bay-Delta Program (Program). This letter represents Metropolitan's response as an affected public agency stakeholder. Metropolitan provides supplemental imported water from both the Bay-Delta watershed and the Colorado River to the 16 million people within its Southern California service area through its 27 member agencies.

The Bay-Delta Program has made several accomplishments to date. Since the Bay-Delta Accord was signed in 1994, all 15 state and federal agencies have worked cooperatively to find an equitable, sustainable solution to the Bay-Delta problems. In addition, CALFED has facilitated high-level involvement and discussion among stakeholders in its effort to define a long-term solution. A key agreement that emerged from these discussions was a CALFED commitment to achieve continuous improvements in the three areas of water quality, water supply, and fisheries with performance evaluated using established measures of success. This agreement framework was the basis for the draft Revised Phase II Report released on December 18, 1998.

Unfortunately, the Draft PEIS/EIR will not help CALFED achieve its commitments. The Program described in the Draft PEIS/EIR does not assure improved source water quality and water supply reliability. Further, the document lacks the analyses and specificity legally necessary to implement needed water quality and supply reliability improvements through subsequent environmental documents. Metropolitan believes the Draft PEIR/EIS describes a program that is headed in the wrong direction, which is not supported by adequate environmental documentation, and which we can not support. However, with sufficient specificity,

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Metropolitan believes the Program can be redirected to implement a balanced solution that benefits water users as well as the environment.

The December draft Revised Phase II Report provided a list of actions that would be completed prior to the final program approval, including:

- A decision on the overall CALFED management structure.
- A decision on the entity that will carry out the ecosystem restoration work.
- A complete Conservation Strategy, including goals and actions for species recovery and a framework for incidental take associated with Stage 1 actions.
- Strategic plans for each program element, with measurable performance goals; Stage 1 actions; financing; recommended governance; and key milestones and decision points.
- Identification of the first group of Stage 1 projects, and implementation of an environmental documentation and permit coordination process.
- A Programmatic Section 404 assurance package.
- A recommendation on an Urban Conservation Certification entity.
- The Agricultural Water Use Efficiency Strategic Plan.
- A defined process to provide linkages between program actions.

The Draft PEIS/EIR fails to deliver on these expectations, some of which have been deferred beyond final approval. Although the Draft PEIS/EIR contains a wealth of important technical information vital for the Program, we believe it is legally inadequate in the following areas and as a result, will not aid in moving the Program toward its goals:

- **The Programmatic Approach is Insufficient:** The Draft PEIS/EIR fails to evaluate the whole of the action, fails to evaluate the environmental consequences of each alternative as a whole, and fails to disclose important on-going study efforts. As a result, the Draft PEIS/EIR does not provide a complete evaluation of the project and its impacts and as such provides no information to assist in making informed decisions to implement a complete solution. Further, the Draft PEIS/EIR lacks broad analyses of programmatic issues which must now be evaluated time and time again in subsequent project-level documents. In addition, the Draft PEIS/EIR does not provide a basis to support any

regulatory findings at the program level. Thus, CALFED's Draft PEIS/EIR does not function as a programmatic document in streamlining environmental review.

- **Project Objectives Have Not Been Adequately Defined:** The first step in developing any project is defining what it is intended to accomplish. Without an adequate definition of project objectives, it is impossible to evaluate whether a particular alternative is able to achieve its intended purposes. The Draft PEIS/EIR has failed to clearly define specific project objectives and as a result, there is no sound basis for defining the scope of the Program.

- **Program Actions Do Not Achieve Project Purposes:** The Bay-Delta Program was originally intended to provide a comprehensive, balanced, long-term solution to meet identified problem areas of water quality, ecosystem health, water supply reliability, and system vulnerability. But by failing to define specific project objectives, the Draft PEIS/EIR has obscured the basic test of whether the Program actions will achieve the original project purposes. As a result, the Draft PEIS/EIR outlines a hodgepodge of unrelated actions that show little hope of achieving the original project purposes.

- **Lack of a Range of Feasible Alternatives:** The Draft PEIS/EIR fails to include and fully describe all reasonably feasible alternatives that could satisfy the original project objectives. Other than differing conveyance elements, the alternatives evaluated in the Draft PEIS/EIR are essentially one and the same. The limited extent of alternatives combined with the lack of clearly defined project objectives led to arbitrary dismissal of feasible solutions in disregard of CALFED's own technical studies. Further, the Draft PEIS/EIR does not contain a true no-action alternative as required for the proper evaluation of project impacts.

- **Alternative Analyses are Flawed:** The analyses of alternatives in the Draft PEIS/EIR are flawed in many respects, such as the failure to evaluate each alternative as a whole, the failure to consider significant indirect impacts, and the failure to consider long-term effects from all project components. In addition, the analyses contained in the Draft PEIS/EIR rely on many assumptions that have no technical support. Requested documentation that supported CALFED's assumptions was never received, thereby hampering Metropolitan from providing meaningful review and input on these areas of concern.

Discussion of these points is provided in Enclosure 1 to this letter. Metropolitan's detailed comments that focus on specific discussions and/or analyses presented in the Draft PEIS/EIR are presented in Enclosure 2.

Metropolitan has invested billions of dollars attempting to secure dependable and high-quality State Water Project supplies. The benefits of these investments in enhanced water quality and water supply reliability is critically important to our regional water management strategy and to southern California's overall economy and quality of life. For this reason, Metropolitan has invested heavily in CALFED and has been proactively engaged in its process. Metropolitan's continued support of the CALFED process will depend on whether the program results in near-term as well as long-term actions that enhance source water quality and water supply reliability. However, for the reasons outlined above, such improvements do not appear forthcoming.

Metropolitan is not advocating any one solution. We believe that a long-term solution can be achieved through a combination of in-Delta and out-of Delta actions that may not include an isolated facility.

To move the Program forward, CALFED must commit to a plan of action now that benefits both water users and the environment. The action plan should include:

- Source water quality improvements in the Delta, tied to the establishment of water quality performance milestones to assure compliance with existing and future regulations.
- Implementation of the South Delta Improvement Program and solutions from the Integrated Storage Investigations to increase State Water Project export capability to 10,300 cubic foot per second.
- An Environmental Water Account providing water supply and water quality enhancement relative to the Accord as well as environmental improvement.
- Regulatory assurances that protect water users from unexpected negative impacts on supply or quality in exchange for our support of ecosystem restoration actions and the Environmental Water Account.
- Near-term decisions regarding new surface and groundwater storage, with a commitment to aggressively implement storage.
- State and federal funding of environmental and recreational costs associated with broad public benefits.

Metropolitan believes that carrying the Draft PEIS/EIR to a certified final will not achieve real progress in these areas. The document contains very important technical information and its benefit in the planning of the long-term solution is not diminished. However, we believe the

document is irredeemable from a legal standpoint and as a roadmap to achieve the Program's stated goals. We believe a better approach is to begin implementation of the above action plan through a series of bundled Stage 1 packages, each with independent environmental documentation.

We have appreciated the opportunity to participate and provide input to the CALFED Program throughout its development. We will continue to participate and support CALFED's goal of achieving a comprehensive solution to the problems of the Bay-Delta. But, such a solution can only be achieved by moving forward in a truly balanced manner, with benefits for water users as well as the environment.

Very truly yours,

Timothy H. Quinn
Deputy General Manager

ACK:cl

Enclosures

bcc: N. G. Taylor
T. H. Quinn
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Enclosure 1

DISCUSSION OF MAJOR INADEQUACIES OF THE CALFED BAY-DELTA PROGRAMMATIC EIS/EIR

The Programmatic Approach is Insufficient

The Draft PEIS/EIR document identifies itself as "programmatic." In giving that designation, CALFED has a responsibility to prepare the document following the Council on Environmental Quality (CEQ) Regulations to NEPA and the State CEQA Guidelines. Under these laws, CALFED needs to present a broad, programmatic approach to the evaluation of the Bay-Delta Program. There are several advantages to preparing a programmatic document:

> *"The program EIR can: (1) Provide an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action, (2) Ensure consideration of cumulative impacts that might be slighted in a case-by-case analysis, (3) Avoid duplicative reconsideration of basic policy considerations, (4) Allow the lead agency to consider broad policy alternatives and program wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts, [and] (5) Allow reduction in paperwork."*[1]

Given this direction, Metropolitan finds the approach in the Draft PEIS/EIR insufficient to evaluate Program alternatives and to support broad programmatic policy decisions.

The Document Does Not Define Programmatic Decisions Needed to Achieve Program Purposes

To provide a sufficient basis to facilitate informed decision making, a programmatic document must at least define the broad decisions that will be needed to achieve the program purposes. The Draft PEIS/EIR, however, does not define these decisions. The whole of the program needed over the next 20 to 30 years is not included in the evaluation of effects. As an example, for the storage and conveyance elements, CALFED has limited the scope of decisions to only short-term actions proposed for the first few years of the program. In addition, the alternative decisions are few and the consequences of these decisions are evaluated under an extremely narrow range of future operating conditions. By limiting the scope of the program, the environmental consequences of major decisions that may be ultimately needed, such as whether or not to construct an isolated facility, are simply not evaluated. In other words, the Draft PEIS/EIR does not evaluate the full range of actions that could ultimately form a comprehensive long-term solution for the Delta. Without defining the overall Program, the document can not provide a complete evaluation of possible consequences and thus does not aid reasoned decision-making.

The Document Has Been Issued Too Early and the Public Record is Incomplete to Allow Public Review of a Complete Program

[1] State CEQA Guidelines Section 15168[b].

CALFED is currently involved in a number of technical efforts that may present significant new information and/or significantly change the Preferred Alternative. Many of these efforts are focused on developing the specific project actions that comprise CALFED's Preferred Alternative. On-going efforts focusing on the Program's water management objective include CALFED's Economic Evaluation, Water Management Strategy, the Integrated Storage Investigations, and establishment of an Environmental Water Account. In addition to the water management strategies, CALFED is also involved in on-going efforts to define specific water quality and ecosystem restoration actions. However, the Draft PEIS/EIR has been issued too early to provide for meaningful disclosure of these important on-going efforts.

To exemplify this point, CALFED's August 1999 newsletter describes the on-going Integrated Storage Investigations as defining the role of storage for the Preferred Alternative. Metropolitan understands this effort will identify the mix of water resource "tools" for the Preferred Alternative, including the amount of groundwater and surface water storage, water use efficiency measures, transfers, and conveyance. In this same newsletter, CALFED discloses its intent to insert this vital information into the final PEIS/EIR without the benefit of public review and comment.[2] This is impermissible. In order to understand and evaluate CALFED's project, and to comply with CEQA and NEPA, information describing key components of the program and its impacts must be disclosed for public review and comment. To meet the disclosure requirements, the results of all on-going technical studies will have to be circulated for public review in subsequent draft environmental documentation. Thus, the Draft PEIS/EIR has been issued too early for public review of the complete program and defeats the purpose of streamlining environmental review.

The fact that CALFED is continuing project definition studies outside of public review suggests that CALFED is concerned only with the appearance and not the substantive aspects of meeting NEPA and CEQA requirements. NEPA and CEQA were designed to give the public input to government decision making. In disregard of the spirit of NEPA and CEQA, CALFED has seemingly already decided its course of action and is moving forward without giving the public an opportunity to be heard.

In addition, much of the existing analysis and documentation has never been disclosed to the public. For example, in our letter to CALFED dated August 4, 1999, Metropolitan requested several documents cited or necessary to support conclusions reached in the Draft PEIR/EIS, but which have never been included in the record. It is likely that similar documents exist. It is premature to expect meaningful public input until all of the supporting documents are made public.

Analyses of Programmatic Issues Are Incomplete

A sufficient programmatic approach must also be designed to consider the broad policy implications of the overall program. This avoids duplicative consideration in project-level

[2] The August 1999 *CALFED Bay-Delta Program News* states: "An important milestone of the ISI will be reached by April 2000, when the final CALFED Program EIS/EIR will be released. By that time, conclusions will be drawn from the on-going ISI studies to better define the role of storage in the preferred alternative."

documents and reduces paperwork. CALFED's Draft PEIS/EIR, however, does not accomplish these basic objectives. In many cases, the programmatic analyses are non-existent. In other cases, the programmatic analyses are incomplete and insufficient to support implementation of the proposed actions. For example, the narrow range of operating conditions considered will likely necessitate re-evaluation of the individual actions under more realistic conditions. The cumulative impact analysis is deficient and will have to be augmented in project-level documentation. Likewise, analysis of growth-inducing impacts is deferred which CALFED admits must "be analyzed in greater detail in future project-specific NEPA/CEQA documents that are tiered from [the Draft PEIS/EIR]."[3]

The lack of comprehensive, broad analyses of programmatic issues in the Draft PEIS/EIR will require these issues to be evaluated again in each of the project-level environmental documents. The failure to provide adequate analyses of policy issues in the Draft PEIS/EIR thus defeats a central purpose of a programmatic document in streamlining the future environmental process through tiering.

The Document is Not Adequate to Support Meaningful Findings at the Programmatic Level

The Notice of Intent/Notice of Preparation (NOI/NOP) of March 1996 stated that the PEIS/EIR is intended "to satisfy the requirements of the Section 404(b)(1) Guidelines to identify the least environmentally damaging alternative capable of meeting the program purposes." Despite this original intent, the Draft PEIS/EIR does not provide a basis for making any meaningful findings at the program level. As CALFED discloses, contrary to the NOI/NOP the "[p]rogrammatic EIS/EIR for the Preferred Program Alternative will not establish a sufficient basis for a final determination of Section 404 compliance at the time of the ROD."[4] In addition, the Multi-Species Conservation Strategy of the Draft PEIS/EIR does not evaluate the overall effect of system operation on threatened and endangered species, particularly fish. Instead, it focuses not on operations but only on streamlining subsequent project-level approvals for certain actions, the bulk of which are those for ecosystem restoration. Failure to include a programmatic evaluation of system operations will require repeatedly analyzing the effects of operations in each individual take authorization.

The Draft PEIS/EIR should serve as a comprehensive overview document with sufficient analysis of the Program as a whole. This approach would support making findings associated with the requirements of Section 404(b)(1) and would support incidental take authorizations based on operating the system within agreed upon limits. The Draft PEIS/EIR fails in this regard and is not adequate to support meaningful findings for the Program.

The Document Hinders Progress

By failing to evaluate the whole of the action, by failing to evaluate the environmental consequences of each alternative as a whole, and by failing to disclose important on-going study efforts, the Draft PEIS/EIR does not provide a complete evaluation of the Program and its

[3] PEIS/EIR Impact Analysis Document p. 3-3

[4] PEIS/EIR Revised Phase II Report Appendix p. 168.

impacts. Consequently, the Draft PEIS/EIR provides inadequate information to assist in making informed decisions to implement a complete solution. Further, the Draft PEIS/EIR lacks broad analyses of programmatic issues which must now be evaluated time and time again in subsequent project-level documents. In addition, the Draft EIS/EIR does not provide a basis to support any regulatory findings at the program level. Thus, CALFED's Draft PEIS/EIR does not function as a programmatic document. On the contrary, it will only hinder progress because the vagueness of the Program will lead to debates of whether certain future actions are within the Program.

Project Objectives Have Not Been Adequately Defined

Nothing is more important under NEPA and CEQA than an adequate and finite project description. However, before a project can be adequately defined, the project objectives must have been clearly identified.

The NOI/NOP set out broad objectives and general solution principles for the Bay-Delta Program. The Program was described as a long-term comprehensive plan for the Bay-Delta system with the broad objectives of addressing problems of water quality, ecosystem health, water supply reliability, and system vulnerability. The general solution principles were that the Program be "practicable" (affordable, equitable, durable, and implementable), "balanced" (reduce conflicts among competing interests), and must not redirect significant impacts to other areas. However, CALFED has not taken the next step to adequately develop these broad objectives into specific project goals.

The Document Fails to Identify Specific Program Objectives

To permit evaluation of a particular alternative's ability to achieve Program purposes, the broad objectives first identified in the NOI/NOP must be reduced to clearly-defined, specific project objectives. The Draft PEIS/EIR has failed in this regard. For the PEIS/EIR to be adequate under NEPA and CEQA, and to facilitate reasoned decision-making, clear and specific project objectives must be established. Further, without a clear definition of the Program, CALFED can arbitrarily add or remove project alternatives without public disclosure of the decision-making process that is the core of NEPA and CEQA.

The Document Fails to Establish Measurable Goals and Schedules for Achieving Water Quality Program Purposes

While the Draft PEIS/EIR provides measurable objectives for some areas, the refinement of the broad purposes into specific objectives is incomplete and is not sufficient to define the scope of the Bay-Delta Program.

With regard to water quality, we support the long-term targets established for bromide and total organic carbon. However, to assure that the Bay-Delta Program is designed to achieve these long-term targets, their definition must include a schedule for achieving water quality improvement needs. Because the water quality objectives and schedule of milestones serve as the basis for defining the project actions, definition of specific interim water quality milestones can not be deferred beyond public review. Thus the statement in the Draft PEIS/EIR that

"interim milestones will be developed"[5] is unacceptable and may be viewed as an attempt to circumvent NEPA and CEQA disclosure requirements.

In addition to improved drinking water quality to meet current and future regulatory requirements and to protect health, water from the Bay-Delta must be consistently low in salinity. Source water low in salinity is necessary to implement local water recycling and groundwater programs and to minimize economic impacts on residential and industrial users. Despite these needs, the Draft PEIS/EIR fails to clearly establish an acceptable numeric target for salinity. Instead, the Draft PEIS/EIR states in one instance that "CALFED has not adopted specific numeric targets for salinity (other than meeting existing Delta standards) ..."[6] Elsewhere, the Draft PEIS/EIR implies salinity targets are 220 mg/l on a 10-year average and 440 mg/l on a monthly average.[7] Because of the fundamental importance of low salinity water from the Bay-Delta in the development of the alternative local water supplies contemplated under the Program, an acceptable numeric target for salinity and a schedule for achieving that target must be established. As a first step toward achieving the levels of recycling and groundwater conjunctive use the Program contemplates for Southern California, the salinity target must be established at 150 mg/l total dissolved solids on a sustained basis.

The Document Fails to Establish Measurable Goals and Schedules for Achieving Water Supply Program Purposes

The Draft PEIS/EIR has failed to establish any numeric targets for water system reliability. The water supply reliability objective should be defined in terms of reliability performance standards based on the quantities of water needed for urban, agricultural, and environmental uses. Without specifying the amount of water needed, it is impossible to define the scope of water supply-related actions. As with water quality milestones, definition of such a fundamental element of the project description can not be deferred until after public review. The Draft PEIS/EIR, in discussing the loosely defined water supply reliability goals states that "[a]s CALFED moves toward a final Record of Decision, these goals will be refined and, where possible, quantified with numeric targets."[8] Deferring this quantification is unacceptable and could be viewed as an attempt to circumvent NEPA and CEQA disclosure requirements.

For consistency with the expectations of the Program for other water supplies to Southern California, the water supply target must be set to provide 650,000 acre-feet of State Water Project supplies by 2020 during a repeat of a 1991 drought condition. That is an additional 200,000 acre-feet of dry-year yield to Metropolitan, over existing supplies, by the year 2020. These targets are based on deliver of State Water Project supplies to Metropolitan at 150 mg/l total dissolved solids by 2020. If this salinity target is not met by 2020, Southern California will need to increase State Water Project dry-year supplies by an additional 200,000 to 400,000 acre-feet, depending on the salinity levels of our Colorado River Aqueduct supplies.

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[5] PEIS/EIR Revised Phase II Report Appendix p.44.
[6] PEIS/EIR Revised Phase II Report Appendix p. 43
[7] PEIS/EIR Water Quality Program Plan Appendix p. D-5
[8] PEIS/EIR Revised Phase II Report Appendix p. 54

The Document Fails to Establish Measurable Goals and Schedules for Achieving Levee System Program Purposes

The Draft PEIS/EIR has failed to establish clear specific goals for levee system integrity. Rather, the objective is merely "to reduce the risk of failure to land use and associated economic impacts, water supply, infrastructure, and the ecosystem from catastrophic breaching of Delta levees."[9] Without more specificity, it is impossible to evaluate whether a particular Program action or group of actions is able to achieve its intended purpose. To measure the ability of actions to reduce the risk of failure to the Delta water supply system, the Program must establish a goal for the maximum amount of time the Delta water supply system could be interrupted following a major catastrophe. Considering the far-reaching impacts such an outage would create, Metropolitan recommends the Program be designed to limit any interruption of Delta supplies following a major catastrophe to 6 months or less.

The Document Fails to Establish Specific Measures of Feasibility

In keeping with the original solution principles outlined in the NOI/NOP, the Program must also establish specific measures of feasibility, including such factors as practicability, cost, technological certainty, and logistics. These measures are essential to determine whether a particular action or set of actions is feasible. However, the Draft PEIS/EIR has declined to define these measures and instead suggests that they will be defined later, which is impermissibly outside of public review.[10]

Program Actions Do Not Achieve Program Purposes Described in the NOI/NOP

The overall purpose of the Bay-Delta Program was described in the NOI/NOP. The NOI/NOP called for comprehensive, balanced, long-term solutions to meet identified problem areas of water quality, ecosystem health, water supply reliability, and system vulnerability. But by failing to define specific project objectives, CALFED has obscured the basic test of whether the Program actions will achieve the original project purposes. As a result, the Draft PEIS/EIR outlines a Program consisting of an array of unrelated actions that show little hope of achieving the original project purposes.

The Document Fails to Present a Complete Long-Term Solution

The Program outlined in the Draft PEIS/EIR represents a significant departure from a long-term solution described in the NOI/NOP. Although CALFED developed and evaluated long-term solutions in its 1998 Draft PEIS/EIR, it has declined to choose among the alternative solution sets described in that document and as called for in the NOI/NOP, and instead has reformulated a plan that focuses largely on just short-term actions.

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[9] PEIS/EIR Revised Phase II Report Appendix p.14

[10] PEIS/EIR Revised Phase II Report Appendix p. 168. In discussing the contents of an MOU on the Program's Section 404 compliance strategy that is to be completed at the time of the ROD, CALFED states the MOU will "[e]stablish performance criteria for alternatives to water storage projects, which would represent the limit of practicability... ."

Although it is understandable that short-term actions would be defined in greater detail given that more information is known, CALFED has gone beyond this. As an example, for the Storage and Conveyance elements, the PEIS/EIR considers only the short-term, and the actions proposed do not include the studies that would enable a decision on the isolated facility as one possible long-term solution. In fact CALFED discloses in the Draft PEIS/EIR that the decision on the isolated facility as a long-term solution is outside the Program, as it would be considered only as part of a supplemental programmatic review.[11]

By packaging the proposed actions and decisions in an all-encompassing programmatic document, CALFED is obligated to describe the complete long-term solution. As the Draft PEIS/EIR purports to cover the full extent of the Program, its abbreviated scope represents a fundamental change from the comprehensive long-term plan originally noticed. Further, in keeping with the spirit of a Bay-Delta solution as outlined in the NOI/NOP, the Framework Agreement, and Proposition 204 (§78684.2)[12], Metropolitan believes CALFED is not at liberty to abbreviate the scope of the Program.

The Document Fails to Present a Solution for Water Supply Problems

Over the past decade, more than one million acre-feet of water supply have been reallocated from California's cities and farms to the Bay-Delta environment. The Program was not only supposed to begin recovery of those supplies but further increase them in order to meet the State's growing water needs.

However, the actions proposed in the Draft PEIS/EIR show little promise of alleviating the Bay-Delta's critical water supply problems. The Draft PEIS/EIR indicates that the maximum amount of recovered water supply the Program could generate without storage is 250,000 to 370,000 acre-feet. However, additional analysis by the Ag/Urban Caucus shows the Program may actually reduce export supplies by 700,000 acre-feet.

Even if realized, the potential recovery noted above depends on the construction of water supply facilities. However, the period for implementing the South Delta Improvements, the primary source of non-reservoir water supply measures, is extended beyond the Stage 1 period. Thus, there is simply no real solution in the Draft PEIS/EIR addressing water supply. Contrary to its stated purpose, the actions of the Program virtually guarantee that Delta's water supply problems will grow worse.

Metropolitan's service area must be assured of a reliable dry-year supply from the State Water Project. Metropolitan must also have access to its full State Water Project entitlement in wet years to supplement and enhance local storage and conservation programs. The Program must include actions that address these needs. Metropolitan must also be assured that improvements to enhance the flexibility of the system are in the Program, including:

[11] PEIS/EIR Revised Phase II Report Appendix p. 81

[12] §78684.2 reads in part "CALFED program elements will achieve balanced solutions in all identified problem areas," and that the PEIS/EIR "will include a schedule for funding and implementing all elements of the long-term comprehensive plan."

1. Expansion of the Banks Pumping Plant to full export capacity as part of the South Delta conveyance improvements;

2. Opportunity for interchangeable operations of the State Water Project and the Central Valley Project; and

3. Determination of the proper mix of surface and/or groundwater storage to meet economic and environmental needs.

The Document Fails to Establish Assurances Water Quality Actions Will Improve Water Quality

Californians demand improved drinking water quality. Moreover, more stringent future drinking water quality standards will require that Delta water quality be substantially improved. However, the water quality actions described in the PEIS/EIR offer little opportunity of improving quality.

Although the Draft PEIS/EIR establishes long-term targets for bromide and TOC, there is no schedule for achieving those targets and no indication CALFED's drinking water quality actions will achieve those targets. The Draft PEIS/EIR does not establish interim water quality milestones linked to the Stage 1 actions, and as result, provides no assurance for specific improvement in water quality.

In addition to public health concerns, Metropolitan must be assured that its water supplies will support current and expanded water recycling and groundwater conjunctive use programs. The Program anticipates enhanced water resource management in Metropolitan's service area through greatly expanded water recycling and groundwater conjunctive use programs. To continue and expand these programs, the Bay-Delta Program must include actions that will reduce the salinity of Delta supplies to acceptable salinity targets. It has not.

Metropolitan's water quality needs can be met through various means, including improvements to source-water quality, access to alternative water sources, and treatment facility improvements. In the absence of adequate water quality improvement in Delta supplies, the Program must identify and include funding sources that will enable needed water quality and salinity improvements through other means.

The Document Fails to Present a Solution or Option for System Vulnerability Problems

The Draft PEIS/EIR outlines actions of the levee stability program that are focused on strengthening existing levees, rather than reducing the risk of levee failure on Delta water users. In order to achieve the original program objectives of increasing supply reliability and improved water quality, the levee stability program must include actions that reduce the risk that Delta supplies will be interrupted and quality impaired from levee failure. However, with a catastrophic seismic event, failure of levees under the Program is still a strong possibility, leaving the Delta brackish and unusable for an extended period. Thus, the Draft PEIS/EIR presents no real solution or option for the vulnerability problems of the Bay-Delta system.

The Document Does Not Propose a Process to Assure Balanced Progress

CALFED has regularly promoted the concept of balanced progress. The negotiations leading to the release in December 1998 of the Revised Phase II Report promised a process for continuous, balanced progress in all problem areas. The Draft PEIS/EIR, although stating the objective of balance, does not propose a mechanism or implementation approach to achieve it. Instead, it relies on project-by-project analysis and approval for most individual actions of the Program. The likely outcome of this approach is that significant portions of the Program such as ecosystem restoration will be permitted and implemented in the first few years, while other elements of the Program are put off into the future awaiting completion of separate environmental documentation that may or may not occur. This project-by-project approach virtually guarantees particular interest groups will be reluctant to support any and all projects that do not promote their interests, and as a result, implementation of a comprehensive solution will be greatly hindered.

In keeping with CALFED's commitments to a balanced approach, CALFED must define a process to assure all problem areas "get better together." To achieve this end, CALFED must support a concept of bundling that promotes balanced progress through mutual incentives. The Draft PEIS/EIR's attempt at bundling merely groups actions by geographic region with no process to assure balanced progress. To assure balanced progress, the Stage 1 time period should be sub-divided into several substages, with each substage being a "bundle" of projects which meets the test of providing balanced progress within each program area. For each bundle, independent environmental documentation and analysis, decisions, and permits for all individual projects would move forward together and no individual projects would be implemented until all are approved.

The Document Must Include A Defined Governing and Decision-Making Process to Assure Balanced Implementation of Project Actions

As described in the Draft PEIS/EIR, concurrent with the Record of Decision (ROD) for the Program, a new Memorandum of Understanding (MOU) will be entered into to extend the current CALFED governance structure through the initial years of program implementation. A long-term governance plan has not yet been defined but instead will be determined during implementation phase.

With this approach, there is no assurance of stakeholder participation. Continuation of the current governance structure would limit management and oversight functions to the agencies currently serving on the Policy Group, with no assurance that stakeholder interests will be represented.

The Draft PEIS/EIR provides that the governing entity will determine when and if program linkages have been satisfied. However, the process for making such determinations has not been defined and is left to the governing entity itself. Program linkages may dictate the timing and scope of the individual program elements. For example, the governing entity may determine that Ecosystem linkages have been satisfied whereas Storage and Conveyance linkages have not, thus giving the Ecosystem program timing priority. Thus, in the absence of a defined governing and

decision-making process, the governing entity has complete discretion to modify the program, further undermining any assurance of balanced progress.

Lack of a Range of Feasible Alternatives

NEPA and CEQA require the Draft PEIS/EIR include and fully describe all reasonably feasible alternatives that satisfy the Program objectives. But because CALFED has failed to adequately define the Program objectives the alternatives must satisfy, there is no basis for determining whether or not a particular alternative should be included in the analysis. CALFED has used the lack of clearly defined project objectives to arbitrarily limit the extent of the alternatives evaluated.

CALFED Has Arbitrarily Selected and Rejected Actions

CALFED has arbitrarily selected certain actions without describing how it expects to achieve them. As an example, the Water Use Efficiency Program assumes conservation beyond which would be achieved by full implementation of BMPs. Yet, full implementation of BMPs on a statewide basis is not expected by 2020. CALFED does not describe any specific actions that will achieve the assumed conservation levels.

CALFED has also failed to provide a sound technical basis for rejecting feasible actions. An example is CALFED's rejection of Alternative 3 from full consideration. The Draft PEIS/EIR has eliminated from the Program all studies related to the isolated facility component of Alternative 3. These planning studies were previously included in CALFED's December 1998 Phase II Report and are essential to make a decision on whether or not to proceed with Alternative 3. In addition to removing these studies, the Draft PEIS/EIR states that analysis of an isolated facility would be considered only as part of a supplemental programmatic review. Thus, CALFED's decision to defer the planning studies and the decision on the isolated facility outside of the current Program has the practical effect of completely eliminating Alternative 3 from consideration.

Any decision to eliminate an alternative from further consideration must be supported by thorough consideration of the relevant technical studies. In the case of CALFED's decision to eliminate Alternative 3 from full consideration, the technical studies do not support that decision but instead demonstrate that Alternative 3 is a viable long-term solution.

CALFED's March 1998 Phase II Interim Report concluded the most differentiating performance characteristics of the alternatives were the diversion effects on fisheries and the export water quality. Alternative 3 was shown to perform well in these areas. In June 1998, CALFED's Diversion Effects on Fish Team published a draft report that reached the same conclusion with regard to effects on fisheries. With regard to water quality, the independent Bromide Expert Panel convened by CALFED concluded "Alternative 3 would provide the most benefit with regard to the beneficial use of Delta water for drinking water supply." These two technical studies are cited in the Draft PEIS/EIR only as they relate to "public and agency involvement" efforts. The results and conclusions mentioned above are notably absent from the document.

In spite of the technical evidence of the beneficial performance of Alternative 3, the Draft PEIS/EIR has dismissed it on "assurance issues," the "need for better scientific information," the "long lead time required for the dual-Delta conveyance,"[13] and that some stakeholders had voiced their opposition to it. However, these are issues that must be overcome for any alternative. While the practical implications of these issues are not irrelevant, the purpose of an EIS/EIR is to evaluate and disclose the technical merits and impacts of each alternative. Unless an alternative is clearly infeasible or fails to achieve project objectives, NEPA and CEQA require it receive a full evaluation in the Draft PEIS/EIR.

Metropolitan is not advocating any one solution. We believe that the Program objectives can be achieved by a combination of in-Delta and out-of-Delta actions that may not include an isolated facility. However, the decision to exclude any alternative from further consideration must be based on sound technical data and analysis that demonstrate the alternative is infeasible.

The intent of both NEPA and CEQA is to assure that agencies make informed, reasoned project decisions based on the available data and that their decision making process is fully disclosed to the public. By eliminating a promising alternative such as Alternative 3, CALFED is preventing meaningful consideration of a viable long-term solution.

The Three Final Alternatives Do Not Explore a Wide-Range of Choices

Other than differing conveyance elements, the alternatives described in the Draft PEIS/EIR are basically the same. Logically, the individual elements of the other Program components should not be the same for all alternatives but should vary depending on the differing performance of the conveyance elements. As an example, the relatively poor water quality and fishery protection performance from the conveyance elements of Preferred Program Alternative and Alternatives 1 and 2 should require an enhanced level of water quality and ecosystem actions. Considering the full scope of the program and the fact the only difference among the alternatives is the conveyance actions, it becomes clear the Draft PEIS/EIR does not present a range of choices but essentially only one option.

NEPA and CEQA require a reasonable range of feasible alternatives be considered to properly assess project impacts. By proposing only one option and not fully evaluating it against true alternatives, the analyses of the Draft PEIS/EIR is severely impaired. This is particularly true with regard to the public health and fishery recovery consequences of the Program.

Moreover, alternatives may also serve as potential mitigation measures. As such, CALFED is obligated under NEPA and CEQA to consider alternatives that can reduce significant impacts. In comparison to the Preferred Program Alternative, Alternative 3 would reduce adverse consequences to both fisheries and public health. However, the Draft PEIS/EIR has failed to give Alternative 3 full consideration in spite of its demonstrated ability to mitigate project impacts.

CALFED Has Not Included a No-Action Alternative

[13] In fact, the long lead time required is an argument in favor of full, early analysis of this alternative.

"No Action" under NEPA has been defined by the courts as no federal action.[14] However, the No-Action Alternative in the Draft PEIS/EIR assumes major federal actions in adopting more restrictive prescriptive standards and major federal, state, and local action in implementing new water supply and demand management tools. As a result, CALFED has not included a No-Action or No-Project alternative as required under NEPA and CEQA.

The Draft PEIS/EIR establishes "Criterion A and Criterion B" as bookend extremes for supply and demand conditions for No-Action and for the Program's alternatives. However, the Program itself is what influences both the supply and demand conditions. As an example, Criteria A assumes Southern California will not have any increased demand from the Delta because of assumed extremely aggressive water conservation and recycling measures and other undisclosed new water sources. However, these measures require comprehensive legislation and funding as would be provided under the Program. Further, an increase in reclamation requires the reductions in salinity promised in a comprehensive Bay-Delta solution.

Metropolitan also disagrees that the inclusion of additional Delta requirements beyond the adopted 1995 Water Quality Control Plan and biological opinions for winter-run salmon represent baseline operating conditions as assumed for both Criteria A and B.

Thus, the Criterion A and Criterion B conditions represent additional project alternatives and not "No Action" or baseline conditions with which comparison of the identified project alternatives would be proper. Failure of CALFED to evaluate the identified project alternatives against a true baseline or "No Action" set of conditions leads to erroneous conclusions and prevents full disclosure of potentially significant impacts.

The Draft PEIS/EIR has failed to evaluate the No-Action alternative as is mandated under NEPA and CEQA. Metropolitan believes the proper definition of the "No-Action" alternative should be the continuation of the existing facilities and standards under increasing water demands.

Alternative Analyses are Flawed

The analyses of alternatives in Draft PEIS/EIR are inadequate under NEPA and CEQA in many respects. The flawed alternatives analyses result from inadequacies already discussed, such as the failure to evaluate a reasonable range of alternatives and the failure to evaluate the alternatives against a true no-action alternative. Examples of other major flaws in the Draft PEIS/EIR include failure to evaluate each alternative as a whole, failure to consider significant indirect impacts, and failure to provide references to support various assumptions and conclusions.

The Document Fails to Provide an Overall Comparison of the Alternatives

There is no overall comparison of the alternatives in the Draft PEIS/EIR with respect to potentially significant impacts. Instead, they are assessed separately by Program element and

[14] See American Rivers v. FERC, Nos. 98-7009, 98-70084, West Law 599234, 99 Cal. Daily Op. Serv. 6411 (9th Cir. 1999).

geographic region for each environmental category. CALFED's rationale is that because the Program elements (excluding conveyance) are the same under all alternatives, so are the impacts. This rationale ignores the synergistic differences (i.e., as a result of the conveyance system and adaptive management) that will result in some real differences among the alternatives. Each alternative should be assessed to a sufficient level of analysis to allow comparison of alternatives and their environmental impacts. Each alternative should be separately assessed in its entirety to disclose its benefits and impacts, and then compared with the other alternatives.

The Document Fails to Address Significant, Indirect Impacts

The Draft PEIS/EIR fails to consider significant, indirect impacts of the Program. For example, failure of the Program to provide water supplies that meet future drinking water quality standards will require construction of additional regional or local treatment facilities in urban areas throughout the State, the environmental consequences of which have not been addressed. Failure of the Program to deliver water quality with sufficiently low salinity levels will also result in significant indirect impacts that have not been considered. For Metropolitan to meet the secondary drinking water quality salinity standard of 500 mg/l total dissolved solids (TDS), either additional regional or local treatment facilities will be needed or Metropolitan will need to increase its use of Delta supplies in order to blend down the high salinity in its Colorado River water supplies.

The Document Contains Assumptions and Conclusions That Are Not Supported

The Draft PEIS/EIR contains numerous assumptions and conclusions that have no technical support in the record. In an August 4, 1999 letter to CALFED, Metropolitan requested that CALFED provide documentation to explain certain assumptions and conclusions reached in the Draft PEIS/EIR. CALFED responded to Metropolitan in an August 23, 1999 letter stating it was in the process of compiling the requested documentation and preparing an estimate for duplication costs, and would inform Metropolitan when this was prepared. As of the September 23, 1999 close of comment period, CALFED has not provided any further information in this regard.

As noted in the CEQA Guidelines, access to documents referenced in the Draft PEIS/EIR must be made available during the public review period.[15] CALFED has failed to meet this requirement and as a result has compromised the ability of Metropolitan and others to adequately review and comment on the Program.

Enclosure 2 details several other instances where the alternative analyses in the Draft EIS/EIR are flawed, including:

- Analyses lack long-term evaluation associated with the conveyance and storage elements;
- Arbitrary dismissal of evaluating issues as outside the scope or purview of CALFED;

[15] CEQA Guidelines §15087[c][5].

- Disconnect between the presentation of the existing conditions and the potential impacts/conclusions reached in the analyses;
- Inadequate and unsupported discussion on what is the environmentally superior/environmentally preferable alternative;
- The significance threshold criteria used may not be the most appropriate to judge the significance of an environmental impact;
- Inconsistent presentation of mitigation measures; and
- Summary tables provide information for just the Preferred Alternative and not for all alternatives.

* * * * *

Attachment B 1215

DETAILED COMMENTS ON THE CALFED BAY-DELTA PROGRAMMATIC EIS/EIR

Insufficient Programmatic Approach

The Programmatic Decisions Needed to Achieve Program Purposes Are Not Defined

- *PEIS/EIR, Preface. Page iii, ninth paragraph, first and second sentences.* The draft PEIS/EIR should identify characteristics of "potential actions that could be taken by the program" and the information in this document that enables decisions.
- *PEIS/EIR, Chapter 1. Page 1-5, bottom of page, last paragraph, second sentence.* This statement indicates that the draft PEIS/EIR will not assess the long-term effects of the program (i.e., 20- to 30- year implementation period). This 30-year implementation period is noted in the first paragraph on page ES-15 of the Executive Summary Technical Appendix to the draft PEIS/EIR and on page 1-6 (first paragraph) of the draft PEIS/EIR. As discussed in 40 CFR 1508.25 regarding the scope of an EIS: "Connected actions, which means that they are closely related and therefore should be discussed in the same impact statement. Actions are connected if they: (i) Automatically trigger other actions which may require environmental impact statements. (ii) Cannot or will not proceed unless other actions are taken previously or simultaneously. (iii) Are interdependent parts of a larger action and depend on the larger action for their justification." From a CEQA perspective, the "whole" of the action, which may result in a direct or indirect physical change in the environment, must be assessed (section 15378 of the State CEQA Guidelines). The draft PEIS/EIR needs to make a reasonable attempt at evaluating the entire program including the 30-year implementation plan.
- *PEIS/EIR, Chapter 4. Guide to Impact Analyses and Description of Land Use Assumptions, Page 4-9, (section 4.3, Estimated Land Use Changes Due to the Program), third paragraph.* This paragraph alerts the reader that ERP actions in Phase III relating to land use changes are offered as examples of what could occur in the impact analyses of chapters 5 through 7. Yet, earlier the draft PEIS/EIR stated that it would assess Phase I only. The whole of the action (i.e., all 30 years) should be addressed at a programmatic level. However, it appears that the analysis is piecemeal and highly selective. This is not full public disclosure and does not comply with CEQA or NEPA requirements.
- *PEIS/EIR.* A preferred methodology or framework in which the cost of the programs will be prioritize and processes is not included. In essence, the PEIS/EIR documentation does not include a financing plan. It does include a lot of information about financing options, reasons why it is premature to give cost estimates, and examples of how costs could be allocated. The commitment is to have a Finance Plan no later than the time of the ROD. This leaves the current document totally lacking in enough information to provide comments on the plan, an integral component to the overall Program. At the very least, a preferred methodology would have provided a vehicle to respond to and allow for public comment. The estimated costs are also not complete and do not provide a limit to the total costs. Apparently, CALFED is asking for a "blank check." A dollar limit on each program would assure the stakeholders that the projects could not proceed without further discussion if the costs exceed the imposed dollar limit. This would allow stakeholders to understand the

environmental costs and financial obligations they would be incurring and assess the ability to make commitments to them.

- *PEIS/EIR, Preface. Page iv, second paragraph, first sentence.* The draft PEIS/EIR should identify substantial changes intended by the program while the program "will not enact changes in law, regulation, or policy, or allow project construction."

- *PEIS/EIR, Chapter 1. Project Description, Page 1-3, third and fourth paragraphs.* The draft PEIS/EIR should define a "long term solution to the fish and wildlife ... problems" and explain how a "long-term program" relates to the "solution," as the relationship of these purposes is unclear.

- *PEIS/EIR, Chapter 1. Project Description , Page 1-3, text box (Role of CALFED Agencies in Preparation of Programmatic EIS/EIR).* The draft PEIS/EIR needs to include the following information as required in section 15124(d)(1)(A), (B), and (C) of the State CEQA Guidelines relating to intended uses of the EIR: ". . . (A) A list of the agencies that are expected to use the EIR in their decision-making, (B) A list of permits and other approvals required to implement the project, and (C) A list of related environmental review and consultation requirements required by federal, state, or local laws, regulations, or policies. To the fullest extent possible, the lead agency should integrate CEQA review with these related environmental review and consultation requirements." Please provide the relevant programmatic-level information to identify who will be involved with discretionary actions and thereby facilitate in achieving project purposes.

- *PEIS/EIR, Chapter 1. Project Description, Page 1-9, fourth paragraph, second and third sentences.* This paragraph indicates that the purpose statement responds to the following water supply reliability concerns: "These requirements [water flow and timing for certain biota that depend on freshwater flows] have reduced water supplies and flexibility to meet the quantity and timing of water delivered from the Bay-Delta system. Water suppliers and users are concerned that additional restrictions that may be needed to protect species would increase the uncertainty and further reduce the availability of Bay-Delta system water for agricultural, industrial, and urban purposes." These concerns are valid, yet the water supply reliability objectives (i.e., statement of underlying need) on page 1-7 do not respond to these concerns. For example, what criteria was used by CALFED to determine how the Program would "maintain an adequate water supply"? Was this criteria uniformly applied for all proposed alternatives? Further clarification is needed.

- *PEIS/EIR, Chapter 2. Alternatives Descriptions, Page 2-2, (section 2.1.2, Overview of the Eight Program Elements), first paragraph.* "[1]The descriptions of the alternatives are programmatic, defining broad approaches to meet Program purposes. [2] The alternatives are not intended to define the site-specific actions that ultimately will be implemented in Phase III of the Program. [3] A more complete description of the programmatic actions on each of these elements can be found in the Revised Phase II Report Appendix as well as specific program appendices." These statements do not fulfill the intent of NEPA and CEQA for the following reasons: (1) the descriptions for the alternatives are too vague to enable the reviewer to determine whether the alternatives were designed to avoid or substantially reduce one or more of the Preferred Program Alternative's significant impacts (section 15126.6[a] &[b] of the State CEQA Guidelines); (2) to the extent that it is feasibly known at this time, the alternatives can provide some additional information on site-specific actions that will be

implemented in Phase III of the Program; as noted in section 15168(c) of the State CEQA Guidelines "A program EIR will be most helpful in dealing with subsequent activities if it deals with the effects of the program as specifically and comprehensively as possible. With a good and detailed analysis of the program, many subsequent activities could be found to be within the scope of the project described in the program EIR and no further environmental documents would be required."; and (3) program description information does not belong in technical appendices. Rather, technical appendices are for ". . . highly technical and specialized analysis and data. . ." only (section 15147 of the State CEQA Guidelines and 40 CFR 1502.18). Therefore, all pertinent information relating to the Program's and alternatives' descriptions should be synthesized and placed in the two sections of the draft PEIS/EIR, i.e., Project Description and Alternatives Descriptions. In addition, the program alternatives need to provide relevant information on the site-specific actions needed and associated environmental impacts/proposed mitigations in the draft PEIS/EIR, known at this time, to be undertaken should one of them rather than the preferred Program alternative be selected.

- *PEIS/EIR, Chapter 4. Guide to Impact Analyses and Description of Land Use Assumptions, Page 4-2, (Areas of Controversy).* There is no definitive listing of the areas of controversy and what is presented in this paragraph does not provide much in the way of specifics. This section needs to cite where in the document the areas of controversy are more fully presented.

- *PEIS/EIR, Chapter7.5, Urban Water Supply Economics.* The draft PEIS/EIR assumes a mechanism will be developed for assessing and encouraging the implementation of measures that are not cost-effective from the individual utility's perspective, but which might prove cost-effective from a "statewide" perspective.[1] Since there are currently no procedures or criteria for assessing cost-effectiveness from a statewide perspective, the draft PEIS/EIR seriously underestimates the difficulty that would be involved in developing, implementing and applying this perspective.

- *Implementation Plan.*. Section 4.4.5 (beginning on page 73) must acknowledge the part that regulatory change will take in meeting CALFED expectations for water recycling. The state Department of Health Services should be included in the interim governance structure similar to the provisions for water quality in section 4.4.2 (see page 54).

- *Implementation Plan.* The CALFED role related to water use efficiency (see page 114, last paragraph) should be expanded to include proactive pursuit of regulatory change, development of financing mechanisms and legislative actions that are required to meet CALFED expectations for water recycling. (Also see second paragraph on page 6-14 of the WUEPP.)

- *Water Use Efficiency Program Plan (WUEPP).* The discussion on page 2-16 regarding linkages between Water Use Efficiency and CALFED long-term actions to resource problems of the Delta should include a discussion of adaptive management strategies that react to CALFED's success in carrying out its responsibilities regarding water use efficiency identified throughout the DEIS/EIR and in our comments.

[1] *Draft Water Use Efficiency Program Plan*, p. 2-12.

- *Revised Phase II Report (Phase II Report).* The discussion in the second paragraph on page 67 describes the projections in the DEIR/DEIS as not being goals or targets, but rather as potential results from expected actions. (The discussion in the first paragraph on pages 1-6 of the WUEPP describes those projections as "most likely to occur ... regardless of the outcome of a CALFED solution.) Furthermore, the projections are not founded on rigorous analysis or consensus. This promotes an false expectation by CALFED and other decision-makers that certain actions will be taken without CALFED influence or assistance. The second sentence should be revised to read "Rather, they are intended to provide the relative magnitude of potential results of efficiency actions with the understanding that many institutional, regulatory, cost and public perception barriers must be overcome as the result of CALFED actions to achieve those results."
- *Water Quality Program Plan.* The CALFED goals and long-term targets for water quality improvement for Delta drinking water supplies (i.e., public health protection) are supportable. However, CALFED has not specified a schedule and clear set of actions to achieve the goals, so it is uncertain whether or not the goals will be achieved.

Analyses of Programmatic Issues Are Incomplete

- *PEIS/EIR, Chapter 2. Alternatives Descriptions, Page 2-14 (Storage); last paragraph; second, third, and fourth sentences.* Information alluding to specific locations and projects should be part of the project description chapter in the draft PEIS/EIR and not in one of its technical appendices. Are these specific surface storage projects evaluated for in the draft PEIS/ EIR? If not, they should be so the public and affected agencies fully understand the scope of the project being evaluated. In addition, the project description of the draft PEIS/EIR needs to include reasonably foreseeable phases (i.e., realistic long-range conditions) of the Program to account for related impact assessments and possible mitigation strategies. Otherwise, the draft PEIS/EIR would be deficient in its public disclosure requirements and environmental assessment analyses from a programmatic perspective.
- *PEIS/EIR.* CALFED acknowledged that the adaptive management approach makes costing more difficult, but does not address that the changes could impact prior allocations of costs. Since that is possible, supplemental programmatic documentation would be needed to reallocate costs and establish some mechanism that would compensate or credit those who paid but did not benefit from a program or action.
- *PEIS/EIR, Chapter 4. Guide to Impact Analyses and Description of Land Use Assumptions, Page 4-7, (Mitigation Strategies), first three sentences.* There appears to be an inconsistency on how the mitigation measures are identified in the draft PEIS/EIR. In reviewing these statements, a few questions concerning mitigation measures need to be addressed:
  - Why are some specifics on mitigation measures presented and some are not? The discussion appears to be present an arbitrary and inconsistent treatment of the mitigation presentation. CEQA mandates the full disclosure regarding all proposed mitigation measures and if there are any significant effects associated with their implementation.
  - Will those "specific" mitigation measures listed in the draft PEIS/EIR be mandated for future site-specific projects?

- Will the discussion of mitigation measures distinguish between the measures proposed by project proponents, lead agencies, and/ or responsible/trustee agencies, as required by section 15126.4 of the State CEQA Guidelines?
- For tiering purposes, will the draft PEIS/EIR contain feasible mitigation measures (i.e., programwide strategies) that can be incorporated into subsequent actions in the Program (as recommended in section 15168 of the State CEQA Guidelines)? If not, how does the present document aid in subsequent environmental documentation? The purpose of a program EIR is to provide as broad an analysis as possible so that future documents can tier off and concentrate on specific issues rather than re-inventing the "entire wheel."

- *PEIS/EIR, Chapter 7.9 Power Production and Energy, Page 7.9-11, second bullet (Energy-Use Effects for Other than Pumping Load During and After Construction).* This paragraph indicates that this type of impact will be deferred to subsequent project-specific studies. Since the draft PEIS/EIR is broad-based in its analysis, it should include a qualitative discussion of this type of impact based on examples of the types of storage and conveyance systems provided in the other sections of the document. After all, one of the benefits of a programmatic document is to "provide . . . for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action [section 15168(b)(1) of the State CEQA Guidelines]." In addition, according to section 15126(c) of the State CEQA Guidelines, the EIR must "describe [mitigation] measures which could minimize significant adverse impacts, including where relevant, inefficient and unnecessary consumption of energy." Finally, Appendix F of the State CEQA Guidelines: ". . . requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy." Given the size and complexity of the CALFED Program, it is relevant to discuss in a qualitative manner potential energy use impacts during and after construction as related to the various Program elements.
- *PEIS/EIR, Chapter 7.11 Cultural Resources, Pages 7.11-18 -19, section 7.11.11 (Mitigation Strategies).* While project-specific mitigation measures are mentioned as steps, there is no commitment on what kinds of program-level mitigation measures are being proposed for this Program. This provides no direction for future tiered documentation. As noted in the State CEQA Guidelines (section 15168[b][4]), one of the advantages of a Program EIR is that it allows: ". . . . the lead agency to consider broad policy alternatives and program wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts." This section does not comply with the State CEQA Guidelines. The draft PEIS/EIR needs to provide feasible program wide mitigation measures for cultural resources impacts.
- *PEIS/EIR, Chapter 1. Page 1-24, first full paragraph, last sentence.* This assumption may not be correct. What about the potential of indirectly impacting the Delta water should Metropolitan draw 4.4 MAF and still require further water supplies from CALFED?
- *PEIS/EIR, Chapter 5.1 and Attachment A.* The draft PEIS/EIR does not provide necessary information to determine the impacts of program alternatives and the major assumptions used in the alternatives, because of the use of two different demand levels. This is particularly true in determining the water supply impacts of the additional prescriptive Delta actions assumed in Water Management Criterion A. From a review of the modeling assumptions in

Table A-2, there are no two studies that can be compared to determine the impact of only the additional Delta prescriptive actions, because multiple parameters are changed at once, namely, demands, Banks pumping capacity, and Delta regulatory requirements.

- *PEIS/EIR, Chapter 5.1 and Attachment A*. Additional operating restrictions are imposed on new facilities, or additional flow requirements are specified that may impact water supply, reduce operating flexibility, and reduce or eliminate the potential benefits of new facilities, all without supporting justification. *Modeling Assumptions for Program Alternatives (Applies to both Water Management Criteria A and B):*
  - Hood Facility: Restrictions are placed on the operation of the Hood Facility, which could impact or negate the possible benefits of such a facility. Further, no justification is provided to support the proposed operating restrictions.
  - Rio Vista Flows: An additional Rio Vista Flow requirement of 3,000-cfs in July and August is added. This potential impact of this requirement on water supply and water quality is not disclosed. No justification is provided for adding this additional operating requirement.
  - Delta Cross Channel Gates: Additional closure of the Delta Cross Channel Gates is required. This potential impact of this requirement on water supply and water quality is not disclosed. No justification is provided for adding this additional operating requirement.
  - Isolated Facility: A number of operating restrictions are imposed on the isolated facility, including minimum through-Delta conveyance, required Rio Vista flows, and diversion limitations. The impact of these requirements on water supply and water quality is not disclosed. No justification is provided for these additional operating restrictions.
- *PEIS/EIR, Chapter 7.6, Utilities and Public Services.* The draft PEIS/EIR fails to account for the benefits currently accruing to wastewater treatment agencies as the result of conservation programs funded by water agencies. These benefits include reduced O&M costs and, in some cases, the downsizing, deferral and even the elimination of planned capital facilities. Consideration should be given to encouraging the benefiting wastewater agencies help underwrite the cost of active conservation programs.
- *PEIS/EIR, Chapter 7.11 Cultural Resources, Pages 7.11-15 –16 (section 7.11.8, Consequences: Program Elements that Differ Among Alternatives)*. This section also makes simplistic conclusions on ranking the alternatives. Alternative 3 may not necessarily cause the most adverse impacts to cultural resources simply because it involves more ground disturbance. It depends where it would be located, what potential sensitivity to buried resources there may be, and what historic resources may be present. Some aspects of the conveyance may be redesigned or realigned to avoid some impacts; whereas, smaller and more fixed projects like levee improvements may result in significant impacts that are unavoidable. The information provided in this section does not offer the public or decision makers a reasonable presentation on the programmatic impacts by the alternatives on potential cultural resources.

Cumulative Impact Analysis is Deficient

- *PEIS/EIR.* The environmental implications are not considered in the draft PEIS/EIR as related to cumulative cost impacts. Maximum limits on costs would at least establish an outer boundary to the financing plan as well as setting priorities for specific projects with specific environmental impacts.
- *PEIS/EIR, Chapter 1. Pages 1-19 through 1-25 (section 1.6, Relationship with Other Ongoing Programs).* It is not clear from this discussion whether the studies, programs, and projects mentioned in this section are included as related projects for cumulative impact analysis or are included within the existing baseline conditions or No Action Alternative.
- *PEIS/EIR, Chapter 3. Summary Comparison of Environmental Consequences, Page 3-7.* The related projects list is incomplete. The draft PEIS/EIR should include and address, or explain why exclusion is justified, for the following projects not apparent in the list:
  - U.S. Army Corps of Engineers' Comprehensive Flood Control and Ecosystem Study, effects both the Sacramento and San Joaquin drainages.
  - State Water Resources Control Board's Bay/Delta Water Quality Control Plan hearings may result in upstream water uses in conflict with CALFED's watershed program.
  - Conservation or recycling programs that would evolve to eliminate wastewater discharges to streams that would otherwise be intermittently or permanently dry streambeds.
- *PEIS/EIR, Chapter 3. Summary Comparison of Environmental Consequences, Page 3-7, section 3.6 (Mitigation Strategies for Cumulative Impacts).* This section does not provide for program-level mitigation measures. Instead, there is a listing of various studies, management programs, and state/federal laws. Some of these elements acknowledge the need for mitigating cumulative impacts, but are not mitigation measures in and of themselves. This section needs to provide a better summary of program-level mitigation measures that could be implemented to reduce significant cumulative impacts, as required by 40 CFR 1502.14(f), 40 CFR 1502.16(h), and sections 15130(b)(3) & (c) of the State CEQA Guidelines.

Growth Inducing Impacts Analysis is Deficient

- *PEIS/EIR, Chapter 3. Summary Comparison of Environmental Consequences, Page 3-3, (section 3.2, Summary of Growth Inducing Impacts), second paragraph, first sentence; Page 3-4, first paragraph, last two sentences.* Metropolitan disagrees that any increased water supplies or improved water supply reliability associated with the Program would result in growth inducing impacts. Many facilities are planned and constructed to meet the demand forecasted by population growth as projected by the State of California and the various Councils of Governments. Such projects are growth accommodating and not growth inducing.
- *PEIS/EIR, Chapter 4. Guide to Impact Analyses and Description of Land Use Assumptions, Page 4-6, (Growth-inducing Impacts), first paragraph, fourth sentence.* Water supply reliability does not necessarily lead to growth. Infrastructure is sized to accommodate projected growth.

The Document Has Been Issued Too Early to Allow Public Review of Complete Program

- *Executive Summary Technical Appendix, Page 20 (Next Steps), first paragraph, first and second sentences.* Given these statements on continuing to refine the Preferred Program Alternative, Metropolitan requests that all additional technical evaluations be made public for review and comment prior to the Record of Decision and Certification. Both NEPA (section 40 CFR 1502.1) and CEQA (section 21002.1) processes encourage full public disclosure. Should significant new information occur from these new technical evaluations or from public input that was not addressed in the revised draft PEIS/EIR then CALFED will need to comply with section 15088.5 of the State CEQA Guidelines (Recirculation of an EIR Prior to Certification).

- *PEIS/EIR, Chapter 1. Page 1-18 (section 1.5, Next Steps), first paragraph.* Given this refining and re-evaluating of the Preferred Program Alternative, Metropolitan requests that any additional evaluations be made public for review and comment prior to the Record of Decision and Certification. Both NEPA (Section 40 CFR 1502.1) and CEQA (Section 21002.1) processes encourage full public disclosure. Should significant new information occur from these new evaluations or from public input that was not addressed in the revised draft PEIS/EIR then CALFED will need to comply with section 15088.5 of the State CEQA Guidelines (Recirculation of an EIR Prior to Certification).

Project Objectives Have Not Been Adequately Defined

Project Objectives Are Too Broad to Define the Project

- *Watershed Program Plan.* The Watershed Plan objectives have not been adequately defined, the objectives are too broad to define the project and CALFED must establish measurable objectives and schedules for achieving program purposes. The goals of the Watershed Program Plan (Plan) are to provide assistance-both financial and technical-for watershed activities that help achieve the mission and objectives of CALFED, and to help coordinate and integrate existing and future local watershed programs. While the overall goals and objectives of the Watershed Program are supportable, the Plan contains insufficient details regarding Program implementation, and it is not possible to make a determination regarding program benefits. The Watershed Program Plan is inadequate because: (1) it does not contain a clear program description of watershed restoration activities, and (2) it does not contain evaluation criteria and a decision process for selecting actions and determining the benefits/impacts due to implementation of watershed program activities.

- *Water Quality Program Plan.* Metropolitan supports CALFED's targets for drinking water quality improvement of 50 µg/l bromide and 3.0 mg/L total organic carbon (page D-4). However, there is no assurance that water quality improvements needed for public health protection will be achieved in a timely manner. CALFED must establish a schedule and a detailed strategy for achieving the drinking water quality targets in a time frame sufficient to ensure that urban water agencies can meet future more stringent drinking water regulations for disinfection by-products and pathogens using cost-effective treatment technology.

  CALFED's stated targets for salinity reduction in Delta drinking water supplies are 220 mg/L TDS (10-year average) and 440 mg/L TDS (monthly average) (page D-5). Metropolitan believes these salinity targets are not sufficiently protective of Delta drinking water supplies and will not support achieving CALFED's water supply reliability goals. CALFED relies

extensively on water recycling and improved conjunctive use as part of its water management program. Without improvement in source water salinity, achieving these objectives may be uneconomical at best and potentially infeasible. Metropolitan recommends that CALFED establish a salinity target of 150 mg/L TDS for Delta drinking water supplies. This target level is based on the need for Metropolitan and other urban water agencies in Southern California to achieve blended water salinity objectives that would otherwise result in greater demand for Delta water supplies. Achievement of blending objectives is necessary for successful implementation of local water management programs, including water recycling and groundwater storage programs. CALFED must also establish a schedule and a detailed strategy for achieving reduced salinity levels in Delta water supplies during implementation of Stage 1.

CALFED must also establish intermediate performance milestones for drinking water quality improvement, including milestones for bromide, TOC and TDS. Intermediate milestones are needed to indicate whether CALFED has achieved its stated goals of continuous improvement in water quality during Stage 1 (the first 7 years) and to ensure that urban agencies treating Delta water can comply with drinking water requirements using cost-effective feasible technology.

- *Water Quality Program Plan, page 1-11, third paragraph. Water Quality Targets.* CALFED has established water quality targets for drinking water parameters of concern (i.e., bromide, total organic carbon (TOC), total dissolved solids (TDS) and pathogens) that are listed in Appendix D. These targets are not adequately defined in that they do not include a schedule for achieving water quality improvement, and CALFED has not provided a detailed set of actions that are linked to achieving the water quality improvement targets.

- *PEIS/EIR, Chapter 1. Project Description, Pages 1-6 to 1-10 (Project Description and Program Purpose and Need).* This draft PEIS/EIR section is extremely important in establishing a comprehensive definition of the CALFED Program, in terms of the physical description of the components to the Program, locations, time frames, and purposes (40 CFR 1502.13; 40 CFR 1508.18; section 15124 of the State CEQA Guidelines). Even more critical, the PEIS/EIR must clearly provide the statement of underlying needs (i.e., project objectives). This latter requirement is the basis in determining the range of reasonable alternatives in the environmental document (40 CFR 1502.13 and 1502.14; Sections 15124 and 15126.6 of the State CEQA Guidelines). If the needs are presented in a vague fashion, then the number of alternatives will need to be correspondingly broadened and will in turn defeat the intent of both CEQA and NEPA to provide a balanced and focused approach to the impact analyses of a range of reasonable alternatives. When the needs/objectives are more tightly written, then a good match between them and the establishment of a reasonable range of alternatives can be achieved. In the case of the water supply reliability as presented in the PEIS/EIR (page 1-7), the five project objectives (statement of underlying need) are too vague and ambiguous: "maintain an adequate water supply," "improve export water supplies . . . to help meet beneficial use needs," "improve the adequacy of Bay-Delta water," "reduce the vulnerability of Bay-delta levees," and "improve the predictability of the water supply . . . for beneficial use needs." Without specifics, e.g., criteria standards in defining these project objectives, the selection of a range of reasonable alternatives in turn is questionable. The range of alternatives needs to foster informed decision making and public participation (section 15126.6 of the State CEQA Guidelines). At this point, it is unclear how the five

project objectives will reduce the "mismatch between Bay-Delta water supplies and current and projected beneficial uses dependent on the Bay-Delta system." As such, the project objectives/statement of overlying needs should be more specific for full public disclosure and for meaningful decision making by the lead agency (section 15124[b] of the State CEQA Guidelines).

- *Comprehensive Monitoring, Assessment and Research Program (CMARP).* The discussion entitled "Refinements of the water transfers and water use efficiency programs" beginning on page 137 does not address water recycling. An appropriate discussion should be added to the CMARP given the differences of opinion that exist related to water recycling potential.

Measurable Objectives and Schedules for Achieving Program Purposes Must Be Established

- *Ecosystem Restoration Program Plan.* The draft PEIS/EIR should provide additional, more complete supporting scientific justification for the Ecosystem Restoration Program (ERP) restoration objectives, targets, actions for species recovery, habitat restoration and ecological processes, in the ERP Volumes I and II.
- *Ecosystem Restoration Program Plan.* The draft PEIS/EIR should provide refined, clearly understandable ERP selection and prioritization criteria and use them to support implementation recommendations.
- *Ecosystem Restoration Program Plan.* The draft PEIS/EIR should provide technical analysis and scientific justification in the ERP specifically in support of recommended environmental water flow actions and demonstrate how such actions will be adaptively managed.
- *Ecosystem Restoration Program Plan.* The draft EIS/EIR should provide additional analysis and scientific justification to identify how to best link the ERP actions with the necessary monitoring and research (i.e., in the Comprehensive Monitoring, Assessment and Research Program - CMARP) to guide adaptive management.
- *Ecosystem Restoration Program Plan.* The draft PEIS/EIR should provide additional more detailed, broadly supported conceptual models in the ERP to assess both current conditions and potential benefits of restoration actions.
- *Watershed Program Plan.* The Plan is based on general watershed program objectives and desired outcomes to improve ecosystem quality, water supply, water quality and levee system integrity. It does not clearly specify what types of watershed restoration projects can be implemented to potentially improve ecosystem quality, water supply, water quality, and levee system integrity. Due to the general nature of the project description of watershed restoration activities, a range of alternatives is not defined, and benefits and impacts cannot be addressed. The Plan does not provide a linkage between actions and benefits/impacts. Without clear definition of the watershed restoration activities, the Plan assumes that implementation of watershed restoration actions will result in the benefits to ecosystem quality, water supply, water quality, and levee system integrity. The following statements are examples of the lack of specificity throughout the Plan:
  - Page 3-13 lists Stage 1 actions, such as the following: "Fund and implement locally led watershed restoration, maintenance, conservation, and monitoring activities that support the goals and objectives of CALFED."

- Page 3-9 states: "CALFED will support watershed protection measures which reduce sources of turbidity, nutrients, and toxic substances that contribute to reducing the safety of drinking water supplies. Projects to improve water quality may include efforts that seek improvement by reducing source water constituents such as bromide, natural organic matter, microbial pathogens, nutrients, total dissolved solids (TDS), salinity, and turbidity that have a negative impact on a safe drinking water supply."
- Page 2-3 states "Attenuation of flood flows coming from upper watershed areas can provide benefits far downstream in the same system. Delta levees are most vulnerable during high winter flows. Watershed activities that reduce these flows can help maintain the integrity of the levees." This assumption that watershed activities can provide a reduction in flows that will help maintain levee integrity is also unfounded. Further monitoring and analysis of watershed activities need to be investigated before benefits can be declared.

The plan is deficient because it does not clearly define a structure for selecting initial watershed actions or a mechanism for determining the benefits/impacts due to implementation of watershed program activities. As stated on page 4-1, "Adaptive management begins with a clearly defined set of management goals and objectives; includes the development of actions meant to achieve those goals and objectives; and incorporates an evaluation of actions implemented to determine whether goals objectives are being met." As mentioned above, the Plan specifies objectives and goals, but does not include a framework to determine how initial watershed restoration actions will be implemented or how implemented actions will be evaluated to determine whether goals and objectives are being met. The framework for adaptive management is not disclosed.

Since the Watershed Program Plan is based on very general goals and objectives and lacks details regarding program implementation, the reader is led to believe that any type of watershed project that is loosely related to CALFED goals and objectives would potentially be eligible for CALFED funding and/or assistance. This is not acceptable and will make it difficult to justify expenditure of public funds on Watershed Program activities. CALFED must clearly identify beneficial linkages between the Watershed Program and other CALFED program areas and focus watershed program activities in those areas where there are clear program linkages and benefits. In addition, CALFED must develop defensible evaluation criteria and a decision process for providing funding and technical assistance for watershed activities.

- *Water Quality Program Plan.* CALFED has not developed a schedule for meeting water quality improvement targets and implementing actions to achieve the targets that is sufficient for meeting future anticipated stringent drinking water regulations.
- *Water Use Efficiency Program Plan.* The investment proposed by CALFED to help water agencies quantify, document and report water conservation potential and accomplishments[2] would be both valuable and welcomed. However, it is strongly recommended that these necessary activities be initiated before developing final estimates of future conservation potential. It is also suggested that the effort encourage the active involvement of all stakeholders.

[2] *Ibid.*, p. 2-15.

- *Water Use Efficiency Program Plan.* The draft PEIS/EIR is inconsistent in the status it assigns to conservation estimates developed in the report.[3] Furthermore, while the report implies that a distinction exists between "goals" and "targets," the policy and programmatic implications of the implied distinction are unclear. The report needs to explicitly define and to distinguish the meaning of water use efficiency "goals" and "targets." CALFED should also clearly state that the estimates of conservation potential developed in the report—whether referred to as "goals," "targets" or by some other label—are not intended as, nor will they be used as, threshold values for evaluating agency water use efficiency performance or for assessing sanctions.

Program Actions Do Not Achieve Project Purposes

Actions Do Not Address the Long-term Solution

- *Water Quality Program Plan.* CALFED commits to develop, but not implement, a plan to achieve drinking water quality improvement by year seven of implementation, and points out that supplemental programmatic and project level environmental review will be required to implement the elements of the plan.
- *Water Quality Program Plan.* Most of the recommended salt management actions in San Joaquin River watershed will result in a short term TDS reduction with a long-term adverse impact due to salt accumulation in the Basin. The accumulated salts could eventually flushed into the Delta in high concentrations. CALFED should focus on long-term solutions, while implementing short-term actions.
- *Water Quality Program Plan, page 3-3, first paragraph.* On this page and in several other places in the Drinking Water chapter of the Water Quality Program Plan CALFED discloses the limitations of the Water Quality Program actions with respect to improving drinking water quality and achieving reduced levels of bromide, TOC and salinity. CALFED states that it is uncertain whether implementing the drinking water actions will result in acceptable drinking water quality. CALFED also points out (page 3-8) that the proposed restoration of wetlands through the CALFED Ecosystem Restoration Program may increase the total amount of TOC at drinking water intakes, thereby increasing the potential to form DBPs. CALFED further states (page 3-11) that the Water Quality Program actions are not likely to achieve reductions in bromide or in salinity derived from seawater intrusion. With respect to TOC, CALFED points out that the feasibility of actions to reduce TOC is largely unknown, and that implementation of Ecosystem Restoration Program actions to restore aquatic habitats may result in increased levels of TOC in the Delta (page 3-46). Finally, CALFED states that implementing recommended Stage 1 Water Quality Program actions for drinking water will help develop needed information but will not result in immediate water quality improvement (page 3-48). Given this information, it is clear that the CALFED goal of continuous improvement in drinking water quality and CALFED targets for water quality improvement cannot be achieved. CALFED must make explicit, consistent acknowledgment of this reality in the PEIS/EIR and the Revised Phase II Report, rather than just in the Water Quality Program Plan. Further, the Final PEIS/EIR must disclose the consequences of not meeting its water quality objectives. This should include estimated costs for enhanced water

[3] Pages 3-5 and 5-25 of the June 1999 *Draft Water Use Efficiency Program Plan* refer to these estimates as "goals." Pages 1-6 and 5-9 state that they are not goals or targets, and that they should not be interpreted as such.

treatment facilities and alternative sources of water supply, and an evaluation of the feasibility and effectiveness of these alternatives compared to a Delta solution.

No Solution is Presented for Water Supply Problems

- *PEIS/EIR, Chapter 5.1 and Attachment A.* Evaluation (of Section 5.1 and Attachment A) shows that CALFED's own Preferred Program Alternative would at best provide a slight increase in export water supplies but actually may reduce export supplies by over 700,000 acre-feet.

- *PEIS/EIR, Chapter 7.5. Urban Water Supply Economics.* The Program assumes that Eastside Reservoir will produce 400,000 AF of water in a dry year. While this assumption may be valid in a series of dry years, it is not valid in a single dry year.

- *PEIS/EIR, Chapter 7.5. Urban Water Supply Economics.* The Program assumes high levels of groundwater conjunctive use and recycling can be done simultaneously. Metropolitan cannot implement the inflated levels for recycling as cited in the California DWR Bulletin No. 160-98. CALFED must carry out a multi-hyrological economic analysis with water quality parameters included. Until the final results are in from such modeling, CALFED cannot determine if the supplies that was assumed in that bulletin will be available. Meantime, the importance of this type of integrated analysis is occurring step-by-step right now through CALFED and it's also being demonstrated through the Economic Evaluation of Water Management Alternatives. While this information is unpublished, it has not been provided within the context of this public review process and should be.

- *PEIS/EIR, Appendix B.* The second bullet in the first full paragraph on page B-8 should be modified to read "Expand state and federal recycling programs to provide increased levels of planning and technical assistance and financing assistance for capital construction (both loans and grants) commensurate with CALFED's expected increases in water recycling and to develop new ways of providing assistance that effectively mitigates capital risks taken by local agencies in developing water recycling projects." These revisions should also be reflected in the "Comprehensive Monitoring, Assessment and Research Program" appendix beginning on page 80 and the "Revised Phase II Report" beginning on page 68.

- *PEIS/EIR, Appendix B.* The discussion under "Adaptive Management" on page B-15 could be interpreted as applying only to the Bay-Delta system. It should be revised to clarify that adaptive management also consider the successes of CALFED actions taken to assure that CALFED expectations for water use efficiency are achieved consistent with the discussion in the last paragraph on page 1-16.

- *PEIS/EIR Page 5.1-32, first paragraph.* The document states that the Ecosystem Restoration Program would result in additional water use in the Delta due to new flow targets and conversion of land to wetlands. It is not stated whether the source of the water will be purchased supply. If it is not purchased water for the ERP, there will be an impact water supply and reliability. There is no quantification of the impact to water users.

- *PEIS/EIR Page 5.1-34, last paragraph*: It is stated that water transfers from areas upstream of the Delta to areas south of the Delta would impact Bay water supplies since it would be necessary to modify Delta water diversion schedules. This is inaccurate. The water transferred would otherwise be consumptively used. The transfer would only be allowed when there was physical capacity available to move the water. These transfers would not

impact Bay area supplies. These transfers could augment water supplies for water users south of the Delta but they would come at an additional expense.

- *PEIS/EIR Page 5.1-35, first paragraph*: The document states that the Ecosystem Restoration Program would result in additional water use in the Delta due to new flow targets and conversion of land to wetlands. Additionally, it states that water supplies available for diversion from rivers and the Delta will be reduced. It is not stated whether the source of the water will be purchased supply. If it is not purchased water for the ERP, there will be an unacceptable impact to water supply and reliability. There is no quantification of the impact to water users.

- *PEIS/EIR Page 5.1-40, last paragraph*: The document indicates that Alternative 1 results in a slight reduction in carryover storage. A reduction of 100 to 190 TAF is larger than "slight."

- *Implementation Plan.* The Action Item 8 on page 16 should be revised as follows: "Resolve Water Recycling Limitations - Resolve legal, institutional, and regulatory limitations for agricultural and urban water recycling (yr 1-3)." A separate action item should be added as follows: "Secure Funding for Water Recycling – Establish long-term framework for state and federal loan and/or grant funding for urban water recycling capital improvement projects required to promote the 2020 levels of water recycling expected by CALFED (yr. 1-3). Commit to near-term ($500 million initial Stage 1 estimate in years 1-3) and long-term capital financing assistance to mitigate risk of capital investment by urban agencies that are expected to construct projects required to meet CALFED's expectations for water recycling (yr. 1-7)." (Also see page 2-12 of the WUEE and page 123 of the Phase II Report.)

- *Implementation Plan.* The Action Item 10 on page 16 should reflect that support includes commitments to funding support for research in years 1-3. (Also see page 2-13 of the WUEPP and page 124 of the Phase II Report.)

- *Implementation Plan.* The last sentence of the first paragraph on page 74 should be revised to read "Water recycling incentives would take into consideration the capital risk to local agencies associated with the expected recycling amounts and would be awarded based on performance criteria that include cost, water supply reliability, benefits to the Bay-Delta system and other factors that would achieve CALFED objectives."

- *Water Use Efficiency Program Plan (WUEPP).* The discussion in the fourth paragraph on 6-5 indicates that funding provided by CALFED for public education and research regarding water recycling can "ensure a high degree of public confidence in water recycling." While we agree that public education is important to the success of water recycling and that funding can be important to public education and research, funding alone cannot "ensure" public confidence in water recycling. CALFED's proposal in the DEIR/EIS should include a commitment to an outreach program that includes state and federal agencies and lawmakers along with an adaptive management strategy to modify its proposed actions based on measurable results in the area of public acceptance change.

No Assurance That Water Quality Actions Will Improve Water Quality

- *Implementation Plan (Finance Section). Page 124, beneficiaries.* The technical analysis in the draft PEIS/EIR and WQP Appendix does not support the conclusion the WQP will

increase reuse opportunities or provide public health benefits except, possibly, at selected locations in the Delta.

- *Water Quality Program Plan.* The actions/projects included in the WQPP are primarily source control or pollutant reduction actions. The feasibility and cost-effectiveness are unknown for most of the actions. CALFED intends to determine the feasibility and cost-effectiveness for actions during the early stages of implementation, so as a result, it is not possible at this point to determine the affect of the WQPP actions on Delta water quality. Most of the WQPP actions can at best be characterized as pollution prevention actions that will help ensure no further degradation of water quality in the Delta; however, there is little or no evidence that the proposed actions will actually improve water quality in the Delta beyond existing conditions.

- *Water Quality Program Plan.* While CALFED states its intention to reduce salinity levels in Delta water supplies, it has not established a clear set of goals, schedule and actions to achieve salinity reduction in Delta water supplies. The WQPP actions addressing salinity are focused on the San Joaquin River Basin, and the feasibility and cost-effectiveness of many of the actions are limited or not known.

- *Water Quality Program Plan.* There are several statements in the WQPP pointing out the limitations of the WQPP actions in achieving reduced levels of bromide and total organic carbon (two important water quality parameters that are disinfection by-product precursors) in Delta water supplies, based on existing technical information. Metropolitan agrees with these statements. However, CALFED does not make specific proposals for overcoming these limitations in order to achieve water quality improvement goals and targets.

- *Water Quality Program Plan.* In the WQPP and Revised Phase II Report, CALFED makes vague reference to a Drinking Water Quality Improvement Strategy that includes a combination of actions including source control, alternative sources of water, treatment, storage and operations, and if necessary conveyance improvements. However, the only actions described in any detail are the source control actions (whose limitations are pointed out above) and there is no commitment as to timing, decision process or implementation of the other actions that are part of the Strategy.

- *Water Quality Program Plan, pages 3-12 to 3-32.* The drinking water quality actions described in Chapter 3 of the Water Quality Program Plan do not provide assurance that the actions will improve water quality. The actions are primarily source control or pollutant reduction actions. CALFED provides no information regarding the feasibility and cost-effectiveness of these actions, so the reader must conclude that the feasibility is largely unknown. Many of the actions are studies or pilot projects that will provide information but no water quality improvement, and there is no clear schedule and strategy for implementing drinking water quality improvement actions during Stage 1. While we recognize that CALFED intends to determine the feasibility and cost-effectiveness for the actions during the early stages of implementation, it is not possible at this point to determine the effect of the actions on Delta water quality. Most of the actions can at best be characterized as pollution prevention actions that will help ensure no further degradation of water quality in the Delta; however, there is little or no evidence that the proposed actions will actually improve water quality in the Delta beyond existing conditions. As a result, the Water Quality Program Plan actions provide no assurance that water quality improvement for Delta drinking water

supplies will occur in Stage 1 or later stages of CALFED implementation. CALFED must develop a detailed strategy and schedule for drinking water quality improvement that includes conveyance improvements, storage, alternative sources of supply, and treatment, in addition to source control actions.

- *Water Quality Program Plan, page 12-23, Table 4--Stage 1 Actions.* The Stage 1 actions for drinking water are vague and open-ended. CALFED must provide further specificity with respect to timing and implementation of the actions and provide information regarding the probable effectiveness of the actions.
- *PEIS/EIR, Chapter 7.5. Urban Water Supply Economics.* The program assumes that UV can address some of the water quality issues. However, UV does not address the salinity problem due to high salinity concentrations.

No Solution is Presented for System Vulnerability Problems

- *Implementation Plan (Finance Section). Page 113, option 3.* Has CALFED performed a study to quantify potential supply reliability and water quality benefits from the levee protection program? Some stakeholders contend that CALFED's Levee Program will not effectively protect the quality or reliability of Delta supplies (i.e., it will provide no measurable benefits to water users).
- *Implementation Plan (Finance Section). Page 114, issue 2.* If water exporters contribute toward Delta levee protection, they should also have a role in selecting the projects and actions implemented.

No Assurance of Balanced Progress

- *Implementation Plan (Finance Section). Page 101, second paragraph.* The paragraph should be amended to read: "... storage would be developed and constructed, together with aggressive implementation of cost-effective water conservation, recycling ...."
- *Implementation Plan (Finance Section). Page 102, beneficiaries.* The beneficiaries of new storage facilities could also include hydropower operators and the commercial fishing industry.
- *Multi-Species Conservation Strategy.* As currently presented, the MSCS focuses its streamlining benefits on several limited Stage 1 water supply reliability actions, perhaps to some degree on levee stability, but to large extent on the ecosystem restoration program. The MSCS should be revised to provide clear regulatory streamlining benefits to all aspects of the *long-term* CALFED Program.
  - Page 7-1 indicates that the MSCS will provide future streamlining for securing take authorization for species and activities covered in the MSCS. The document states "If...the proposed action is described in sufficient detail, biological data are adequate, and appropriate conservation measures are incorporated, a highly streamlined consultation can be achieved. If the proposed action is generally described in the MSCS, but not in sufficient detail to allow for take authorization ...a less streamlined consultation will occur."
  - Table 5-1 provides a listing of summary programmatic action outcomes that are to be addressed in the MSCS. Attachment 2 Tables A through D itemize programmatic actions

for each summary programmatic outcome that are evaluated in the MSCS. While table 5-1 lists action outcomes for the levee system integrity program, water quality program, conveyance facilities, storage facilities, and conveyance and storage operations, the tables in Attachment 2 do not include any or provide only limited programmatic actions for many of the summary programmatic outcomes. Three programmatic outcomes are identified for the conveyance program with programmatic actions limited to near-term Stage 1 conveyance actions only. There are NO programmatic actions, and therefore apparently NO regulatory streamlining provided for any programmatic outcomes for storage facilities or for conveyance and storage operations including the Environmental Water Account. Comprehensive programmatic actions are identified to achieve levee stability, but it is unclear whether the level of detail will be sufficient to provide streamlining. Further, the water quality actions appear to address Metropolitan's salinity and bromide concerns in very limited ways. In contrast, there are 30 ecosystem restoration program outcomes with detailed programmatic actions extending to 137 pages between tables A through D.

- *Water Quality Program Plan, page 12-10, third paragraph.* In both the Water Quality Program Plan and the Revised Phase II Report (page 43), CALFED introduces the concept of the Drinking Water Quality Improvement Strategy. Metropolitan supports the overall concept of the Strategy, but is concerned that CALFED may not implement all elements of the Strategy in a balanced manner. In addition, the description of the Strategy includes insufficient detail to evaluate whether or not it will be effective. The Strategy includes a combination of elements to achieve drinking water quality improvement and public health protection, including source control actions, storage and operations, alternative sources of water, advanced treatment, health effects studies, and if found to be necessary, conveyance improvements. However, the only actions described in any detail in the PEIS/EIR are the source control actions described in the Water Quality Program Plan, whose limitations are discussed above. CALFED makes no commitment as to timing, decision process or implementation of the other elements of the Strategy. In order to achieve continuous improvement in water quality and meet CALFED goals, CALFED must establish a clear set of actions and a schedule for implementing all elements of the Drinking Water Quality Improvement Strategy in a balanced manner starting early in Stage 1. It is not acceptable to implement source control actions only in Stage 1 and wait for a determination of their feasibility and effectiveness before implementing the other elements of the Strategy.

- *Water Quality Program Plan, page 12-10, Delta Drinking Water Council (FACA Group).* CALFED states that it plans to form the Delta Drinking Water Council (Council) to advise CALFED regarding the implementation of the Drinking Water Quality Improvement Strategy. The Delta Drinking Water Council will serve a critical role in ensuring balanced implementation of drinking water quality improvement actions. The following comments address Metropolitan's concerns with establishing the Council as a subcommittee of BDAC.

  Council recommendations should receive formal consideration. CALFED must establish a clear decision path for acting on Council recommendations and making needed adjustments to the drinking water quality improvement strategy. If CALFED does not act on Council recommendations or chooses to act contrary to Council recommendations, it should provide clear and technically-justified reasons for doing so.

As CALFED develops the long-term governance structure for implementation of the CALFED Program, including the Delta Drinking Water Council, it should incorporate the principle of stakeholder involvement in decision-making. Specifically, the long-term structure for the Council should include a meaningful stakeholder role in the decision-making process for the drinking water quality improvement strategy, rather than solely an advisory role.

It is important that there be sufficient technical support for the Council, including both CALFED Program staff and scientific experts. This is necessary to ensure that the Council can conduct drinking water program reviews and prepare recommendations in a timely manner, and to ensure that the Council deliberation process is technically credible.

The Delta Drinking Water Council should include representatives from agencies responsible for regulating drinking water, urban drinking water agencies that treat and deliver Delta water supplies and regions potentially physically affected by facility decisions recommended by the Council. As urban drinking water agencies are responsible for delivering safe drinking water that meets all state and federal regulations, they should have a proportionally greater representation on the Delta Drinking Water Council to ensure meaningful representation. In addition, the urban drinking water agency representatives on the Delta Drinking Water Council should include representatives from both northern and southern California urban water agencies.

Lack of a Range of Feasible Alternatives

- *PEIS/EIR, Chapter 1. Project Description, Pages 1-14 through 1-18 (section 1.4, Program Alternatives Development Process).* This section provides a succinct discussion on how the program alternatives were developed. However, there are two points that are either not clear enough or are not present that need to be discussed. First, were the program objectives for the preferred program alternative used to guide the development of the other alternatives? Second, were those alternatives that were ultimately chosen found to avoid or substantially lessen one or more of the preferred alternative's significant impacts? This latter point is critical in conducting alternative analysis, even if such alternatives would impede to some degree the attainment of the program objectives or would be more expensive (section 15126.6[a] &[b] of the State CEQA Guidelines).

- *PEIS/EIR, Chapter 2. Alternatives Descriptions, Page 2-19 (section 2.2, No Action Alternative), first paragraph, second, third, and fourth sentences.* The reason for doing an alternatives analysis is to evaluate the alternatives in terms of significant effects (not merely changes to the environment) that they may cause and which of the alternatives could substantially reduce the significant impacts generated by the Preferred Program Alternative itself (section 15126.6[a] & [b] of the State CEQA Guidelines; 40 CFR 1502.14; and 40 CFR 1502.16[d]). The alternatives, including the preferred one, should first be compared to the existing conditions (i.e., affected environment) to determine what are the potentially significant impacts (40 CFR 1502.15). Then, the program alternatives should be examined together to see if any of them (including the no action alternative) reduces or substantially lessens one or more of the significant impacts associated with the Preferred Program Alternative. It is improper to use the No Action Alternative as the basis for comparing the Program alternatives. The No Action Alternative in this case is not identical to the existing conditions. As noted in section 15125(c) of the State CEQA Guidelines: "The EIR must

demonstrate that the significant impacts of the proposed project were adequately investigated and discussed and it must permit the significant effects of the project to be considered in the full environmental context." Please revise this paragraph to accurately reflect this CEQA and NEPA concept of alternatives analysis. This concept should be carried throughout the environmental analysis of the draft PEIS/EIR.

CALFED has Arbitrarily Selected and Rejected Actions

- *Water Use Efficiency Program Plan.* CALFED has arbitrarily selected certain actions that are not economically or technically feasible. As an example, the WUEPP assumes conservation beyond that which would be achieved by full implementation of BMPs. Yet, full implementation of BMPs on a statewide basis is not expected by the year 2020. Further, CALFED does not describe any specific actions that will achieve the assumed conservation levels.

- *PEIS/EIR, Chapter 2. Alternatives Descriptions, Pages 2-1.* The draft PEIS/EIR should discuss a range of options on Alternative 3, or disclose why Alternative 3 cannot be done in phases, starting now, rather than simply writing off potential adverse effects as significant unavoidable impacts. The draft PEIS/EIR should provide options for fisheries and aquatic ecosystems for Alternative 3.

- *PEIS/EIR, Chapter 2. Alternatives Descriptions, Pages 2-23 through 2-27 (section 2.4, Alternatives Not Carried Forward For Further Evaluation).* As noted in the State CEQA Guidelines (section 15126.6[c]), the draft PEIS/EIR should indicate for each of the rejected alternatives that they are not viable because of their "(i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts." Factors for discrediting potential alternatives do not include costs or merely causing adverse impacts (rather than significant adverse impacts) (section 15126.6[b] of the State CEQA Guidelines). In addition, do these "rejected" alternatives avoid or substantially reduce significant impacts that would be generated by the Preferred Program Alternative and still attain most of the project objectives? If the answer is yes, and they were rejected because of primarily because of cost, then they still might be in fact viable alternatives. Please re-evaluate this section in light of CEQA requirements.

- *PEIS/EIR, Attachment A. Pages A-24 to A-25 (under 15,000-cfs Isolated Facility).* Irrigation water from the isolated facility is provided to service areas along the route of the canal. The magnitude of irrigation diversions is not disclosed. In addition, the 15,000-cfs isolated facility coupled with Water Management Criterion A is described as one boundary for the range of isolated facility diversions. Since the combined physical pumping capacity of Banks and Tracy pumping plants is approximately 15,000-cfs, the irrigation service requirement may reduce the available capacity in the isolated canal to less than their respective pumping capacities of the SWP and CVP. In addition, for this Alternative, Criterion A assumes a 15,000-cfs canal capacity, 1995 level SWP and CVP demands, and the assumption that isolated canal flows are included in export restrictions. This combination of assumptions restricts the modeling simulation from demonstrating the full range of potential benefits of a 15,000-cfs facility.

- *PEIS/EIR, Attachment A. Pages A-25 to A-26 (under 5,000-cfs Isolated Facility).* Criterion B assumes a 5,000-cfs canal capacity, 2020 level SWP and CVP demands, and the assumption that isolated canal flows are not included in export restrictions. In this

alternative, the isolated canal capacity itself may be limiting and therefore result in this alternative understating the potential benefits of an isolated facility.

- *PEIS/EIR, Attachment A. Pages A-24 to A-25 (under 15,000-cfs Isolated Facility).* The draft PEIS/EIR states that "a 15,000-cfs isolated facility is evaluated under Criterion A assumptions, and a 5,000-cfs isolated facility is evaluated under Criterion B assumptions. The 15,000-cfs isolated facility assumptions coupled with Criterion A and the 5,000-cfs isolated facility assumption coupled with Criterion B serve as boundaries for a range of possible Delta inflows, isolated facility diversions, south Delta exports, and outflow patterns in this programmatic analysis." As described above, this combination of assumptions does not appear to provide the widest range of isolated facility diversions and potential benefits.

- *Water Use Efficiency Program Plan (WUEPP).* In the first and third paragraphs on page 6-1, water recycling is described as being reliable, locally-controlled and potentially drought-proof. While this may be the case for many parameters affecting its value as a resource, recycled water is a byproduct of consumptive use of many sources of water supply and is vulnerable to variations in source water quality – particularly TDS. As is reported in the Phase II Report (p. 58), the WUEPP should identify that reliability and cost of water recycling can be significantly affected by control of TDS at the source, with the only local solution to adverse effects being development of expensive salt removal facilities. The CALFED proposals should also adopt an adaptive management strategy as part of its proposed action in the WUEPP to modify its expectations for water recycling based on its success in meeting TDS objectives for Delta exports.

- *Water Use Efficiency Program Plan (WUEPP).* The impact of regulations on the upper limit of recycled water use are not related to the regulatory "process" as suggested on page 6-4 (second paragraph), but rather are the result of regulatory agency concerns regarding health risks. The DEIR/EIS should identify that significant regulatory change will require significant research and pilot-project efforts that can clearly demonstrate confidence associated with the use of recycled water. CALFED should also make a commitment to provide funding for research and pilot projects as a part of the proposed action to the extent that the Water Use Efficiency program establishes objectives for water recycling that require regulatory change. CALFED should also adopt an adaptive management strategy as part of the WUEPP to modify its expectations for water recycling based on measurable results in the area of regulatory change.

- *Water Use Efficiency Program Plan (WUEPP).* It is suggested in the third paragraph on page 6-5 that technical and financial planning assistance can help overcome institutional constraints to inter-jurisdictional issues related to water recycling. The DEIR/EIS should identify that a significant barrier to interagency cooperation is the capital cost risks associated with water recycling projects that cannot be mitigated by planning assistance. Accordingly, CALFED should commit to mitigate that risk by providing assistance in the form of direct financial support for capital expenditures to promote the levels of production envisioned by the CALFED Water Use Efficiency program. CALFED should also adopt an adaptive management strategy as part of the WUEPP to modify its expectations for water recycling based on measurable results in the area of increased funding for recycling projects by CALFED agencies.

- *Revised Phase II Report (Phase II Report).* The discussion in the fourth paragraph on page 70 has been modified from previous versions of the report to reflect an increased uncertainty regarding state and federal funding to assist water recycling in Stage 1. While CALFED has committed to evaluate the need for funding, it should be recognized in this discussion that there is a significant risk of local capital expenditure involved with developing recycled water projects due to uncertainties presented by constraints to water recycling discussed in the DEIS/EIR that will continue to limit progress toward its full potential. The uncertainty of availability of financial assistance from the state and federal programs serves only to exacerbate that risk.

The Three Final Alternatives Do Not Explore a Wide Range of Choices

- *PEIS/EIR, Chapter 3. Summary Comparison of Environmental Consequences, Page 3-1, (section 3.1.1, Summary Comparison of Environmental Impacts), second paragraph, second sentence; and EIS/EIR, Chapter 4. Guide to Impact Analyses and Description of Land Use Assumptions, Page 4-5, (Program Elements with Consequences Common to All Alternatives), second sentence.* It seems unlikely that the potential impacts from the other Program elements (excluding storage and conveyance) would only vary minimally among the alternatives. To meet the same program objectives in each of the different alternatives, it would seem likely that there would be some variations within those Program elements in response to the differences between the other two elements (i.e., activities and projects associated with storage and conveyance). Since the draft PEIS/EIR assumes otherwise, it would appear that the lack of differences between the other Program elements can be attributed to either an apparent compartmentalization of these elements (i.e., a "vacuum" environmental analysis rather than the true synergistic and interactive relationships that would exist for each entire alternative) or the lack of overall differences between the alternatives. As such, does a reasonable range of alternatives really exist or aren't the alternatives basically the same (excluding the conveyance elements)?

CALFED Has Not Included A No-Action Alternative

- *PEIS/EIR. Attachment A, Page A-9, last paragraph.* "Ranges also were used to describe possible flow changes in the Trinity and American Rivers due to the Trinity River Flow Analysis Study and Implementation of the EBMUD CVP contract. These activities could result in changes in the availability of water to meet program objectives. The assumed ranges were included in the No Action alternative assumptions to help decision makers better understand the potential consequences of the program." Per page A-18, the May 1991 letter agreement between Reclamation and the USFWS specifies Trinity River minimum fish flows below Lewiston Dam of 340 TAF/year. However, for the No Action Alternative under Criterion A, page A-19 indicates Trinity River minimum fish flows per Reclamation's Draft CVPIA PEIS (maximum flow requirement 750 TAF/year). Is this draft document a suitable basis for determining the No Action assumption? Further, is including the assumed ranges in order to help decision makers better understand the consequences of the Program appropriate for inclusion in this draft PEIS/EIR, and does it meet CEQA/NEPA guidelines?

- *PEIS/EIR, Chapter 2. Alternatives Descriptions, Page 2-19, Page 2-19 (section 2.2, No Action Alternative), second paragraph, last sentence.* According to section 15125(a) of the State CEQA Guidelines: "An EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is

published . . . ." Since the NOI/NOP was published in the Federal Register on March 13, 1996, the existing conditions (i.e., affected environment) for all alternatives, including the No Action Alternative, should be no later than March of 1996.

- *Water Use Efficiency Program Plan.* Year 2020 "No-Action" estimates of total conservation-related reductions in irrecoverable losses and most estimates of indoor usage reductions assume "full implementation" of quantifiable urban BMPs.[4] It is generally recognized by conservation practitioners, however, that "full implementation" of the urban BMPs is unlikely to occur under existing arrangements. First, not all water agencies have signed the California Urban Water Conservation Council's (CUWCC's) *Memorandum of Understanding (MOU)*. As such, these agencies have not agreed to implement the BMPs. Second, BMP implementation is currently voluntary, even for *MOU* signatories. Third, agencies are only obligated to implement a given BMP if it is cost-effective to do so. Current indications are that cost-effective levels of implementation may be substantially less than full implementation where some BMPs are concerned.[5]

- *Water Use Efficiency Program Plan.* Estimated conservation savings under the "No Action" alternative depend critically on conditions, or enabling factors, which do not currently exist. Indeed, most of these necessary conditions would most likely occur only with the adoption of a CALFED program. These include certification of agency BMP activity and cost-effectiveness exemptions; sanctions for chronic non-compliance; supplemental funding; and local ordinances encouraging or requiring water use efficiency in the landscape and the CII sectors.

- PEIS/EIR. Attachment A. Page A-8, first paragraph, last sentence. Metropolitan does not agree with the statement that future water demands is one of the modeling assumptions with the greatest uncertainty. With future increases in population in CVP and SWP service areas, demands will inevitably increase. It is only a question of time until SWP contractor demands reach full entitlement levels. If CALFED desires to use a range of demands to analyze the durability of the alternatives, CALFED should also analyze the anticipated higher demands for the period beyond 2020.

- *PEIS/EIR, Chapter 4. Guide to Impact Analyses and Description of Land Use Assumptions, Page 4-4, (No Action Alternative), second paragraph, first sentence; third paragraph, first and second sentences; Page 4-6, top paragraph.* The reason for doing an alternatives analysis is to evaluate the alternatives in terms of significant effects (not merely changes to the environment) that they may cause and which of the alternatives could substantially reduce the significant impacts generated by the Preferred Program Alternative itself (section 15126.6[a] & [b] of the State CEQA Guidelines; 40 CFR 1502.14; and 40 CFR 1502.16[d]). The alternatives, including the preferred one, should first be compared to the existing conditions (i.e., affected environment) to determine what are the potentially significant impacts (40 CFR 1502.15). Then, the program alternatives should be examined together to see if any of them (including the no action alternative) reduces or substantially lessens one or more of the significant impacts associated with the Preferred Program Alternative. It is improper to use the No Action Alternative as the basis for comparing the Program

[4] *Draft WUE Program Plan*, p. 5-8.

[5] This appears to be true for residential surveys (BMP 1) and showerhead retrofits (BMP 2). It may soon be true for water efficient toilet retrofit programs (BMP 2) in some circumstances.

alternatives. The No Action Alternative in this case is not identical to the existing conditions. As noted in section 15125(c) of the State CEQA Guidelines: "The EIR must demonstrate that the significant impacts of the proposed project were adequately investigated and discussed and it must permit the significant effects of the project to be considered in the full environmental context." Please revise these paragraphs to accurately reflect this CEQA and NEPA concept of alternatives analysis. This concept should be carried out throughout the environmental analysis of the draft PEIS/EIR.

Flawed Alternative Analyses

Assumption That Criterion A and Criterion B Represent Baseline or No-Action Conditions is Erroneous

- *PEIS/EIR, Chapter 5.1 and Attachment A*. "Criterion A and Criterion B" are established as bookend extremes for supply and demand conditions that the Program will operate under. However, the Program itself is what influences both the supply and demand conditions. As an example, Criteria A assumes that Southern California will not have any increased demand from the Delta because of extremely aggressive water conservation and recycling measures. These measures could not occur without a comprehensive legislation and funding program as proposed by the Program. Further, an increase in reclamation can not occur without the reductions in salinity hoped for in a Bay-Delta fix. Thus, the Criterion A and Criterion B conditions represent additional project alternatives and not "No Action" or baseline conditions with which comparison of the identified project alternatives would be proper. Failure of CALFED to evaluate the identified project alternatives against a true baseline or "No Action" set of conditions leads to erroneous conclusions and prevents full disclosure of potentially significant impacts.
- *PEIS/EIR Page A-9, first paragraph*: CALFED refers to Criteria A and B as boundaries for a range of possible Delta hydrologic patterns in the programmatic analysis. The additional environmental measures in both criteria lack scientific basis and do not accurately reflect a potential range of hydrologic patterns. The balance between the environment and the water users is not attained.
- *PEIS/EIR Page A-18, first paragraph*: The constraints on Banks pumping based on striped bass survival are not consistent with the Accord or WQCP.
- *PEIS/EIR Page A-19, SWP and CVP Demands*: As stated above, we do not agree with the assumption that future increases in demand could or should be met with alternative supply or demand management options.
- *PEIS/EIR Page A-19, Delta Environmental Protections*: As stated above, we do not agree with the assumption of additional environmental measures without scientific justification, mitigation tools and assurances to the water users.
- *PEIS/EIR Page A-20, Ecosystem Restoration Program*: We do not agree with the assumption of unjustified flow targets. Furthermore, the idea that target flows are only available for environmental purposes is contrary to state law.

Analyses Lack Long-term Evaluation Associated with the Conveyance and Storage Elements

- *PEIS/EIR, Chapter 5.1 and Attachment A*. The two demand sets used in the modeling studies do not "bookend" the potential level of Bay Delta system demands. As a low bookend, the

1995 level demands are to low because they don't allow for any increase in demands during the program implementation period or beyond. All No Action and Project Alternative model studies assume 2020 level upstream hydrology. The 2020 level upstream hydrology differs from the 1995 upstream hydrology primarily in that the 2020 hydrology assumes additional upstream water demands. Thus, Water Management Criterion A assumes an increase in upstream demands consistent with the year 2020, but assumes no increase in south-of-Delta CVP and SWP Bay-Delta system demands. This assumption is inconsistent, and further, the EIS/EIR provides no supportable basis that the 1995 level of export demand can be mitigated by increased water use efficiency measures. As a high bookend, 2020 level demands are assumed. 2020 level demands include the assumption of variable SWP demands ranging from 3.6 to 4.2 MAF per year. Total annual SWP Contractor water entitlements are currently approximately 4.1 MAF, increasing to approximately 4.2 MAF by 2020. Therefore, the demand used as the high bookend is also too low because it fails to provide for demands at the level specified in existing water supply contracts or to provide for any future increase in Bay-Delta system demands. One of the CALFED solution principles is that the solutions be durable. Given the lengthy implementation period and the requirement for a durable long-term solution, it is reasonable to assume that the useful life of the program is much longer, perhaps 75-100 years. Therefore, the demand sets used should accurately reflect demands over the project life. In summary, the assumptions used severely understate future demands. This may invalidate the conclusions on the environmental impacts reached and the decisions made regarding the program alternatives.

- *PEIS/EIR. Chapter 5.1. Water Supply and Water Management. Page 5.1-45, first paragraph, last sentence.* Direct significant impacts of implementing the additional prescriptive Delta actions included in Criterion A have not been addressed. "Reduced Delta exports associated with Criterion A create more reliance on off-aqueduct storage releases to meet spring demands." The Draft PEIS?EIS did not include any commitment to construct additional off-aqueduct storage. Also, the export reductions under Criterion A would reduce operating flexibility of the CVP and SWP to meet water user demands.

- *PEIS/EIR. Attachment A. Page A-9, first bullet point.* Existing CVP and SWP facilities are not adequate to meet full contract amounts, or even to meet current demands in some years. Given this, we do not agree with the concept of "determining how much existing surface and groundwater storage...would be needed by the EWA." Hence, significant potential impacts of using a portion of existing SWP/CVP surface/ groundwater storage to implement an EWA have not been addressed, especially in the long-term.

- *PEIS/EIR. Attachment A. Page A-22, (under Sacramento River Region Surface Storage).* Under Criterion A, diversions are not allowed unless an in-stream daily flow of 20,000 cfs exists below the diversion location. No scientific or other basis is provided for this operating restriction. Further, operating constraints of this nature have the potential to reduce or eliminate any benefits of a new storage facility.

There is an Arbitrary Dismissal of Evaluating Issues as Outside the Scope or Purview of CALFED

- *Multi-Species Conservation Strategy.* The MSCS seeks full recovery of anadromous fish through habitat improvement measures, proposes to measure recovery in terms of numbers of spawning fish or adult escapement on specified creeks, but does not address harvest issues

because they are stated to be outside of the scope and/or purview of CALFED. The result is an implication that inland habitat is solely, or at least largely, responsible for recovering these species. We disagree; harvest issues are NOT outside the purview of CALFED agencies, and must be addressed as an important factor in recovering species. The great majority of ocean harvest of these anadromous species is subject to regulation by the Pacific Fishery Management Council (PFMC) composed of representatives of the Coast Guard, National Marine Fisheries Service and governor appointees from California, Oregon, Washington, Idaho. The PFMC regulates from 3 to 200 miles off the coast (the exclusive economic zone). The California Fish and Game Commission has authority to regulate commercial salmon fishing for 3 miles off the coast, and has authority to regulate inland sport fishing.The MSCS needs to be revised to include actions which address harvest so that recovery is based on a scientifically-based mix of harvest restrictions and inland habitat restoration.

The MSCS Table 2-2 indicates a goal of full recovery for anadromous fish species including the Central Valley steelhead ESU, Winter-run chinook salmon, Central Valley spring-run chinook salmon, and Central Valley fall-run chinook salmon. Table 3-1 lists specific prescriptions for achieving the recovery goal for these fish species. These prescriptions require achievement of specified numbers of spawning fish or of adult annual escapement of specified creeks. Page 3-2 of the MSCS indicates "A goal of "recovery" was assigned to those species whose range is entirely or nearly entirely within the Delta and Suisun Bay areas and for which CALFED could reasonably be expected to undertake all or most of the actions necessary to recover the species. The discussion acknowledges that in the case of anadromous fish that threats may exist outside the geographic scope or purview of the CALFED and gives the example of harvest regulated by international laws. Later on this page the document states "The goal of "contribute to recovery" was assigned to those species for which CALFED Program actions affect only a limited portion of the species range and/or CALFED Program actions have limited effects on the species." Attachment 2 Tables A through D do not include programmatic actions addressing harvest of anadromous fish.

- *Water Use Efficiency Program Plan.* No estimate of the full cost or financial impact of urban conservation measures is provided in this plan and could affect the overall implementation of the Program and related environmental impacts for each specific action/project.
  - Although the *Draft Water Use Efficiency Program Plan* attempts to summarize the best available unit cost estimates for various BMPs, these costs—as the source document from which they were obtained openly admits—are highly speculative. Since the document also fails to identify the share of total savings that are assumed to result from active (i.e., utility funded) conservation programs, it is impossible to estimate the full cost of measures likely to be incurred by utilities under the assumed levels of "No Action" conservation activity.
  - The document needs to estimate or consider the financial impact on utilities of assumed levels of conservation-related spending.
- *PEIS/EIR, Chapter 4. Guide to Impact Analyses and Description of Land Use Assumptions, Page 4-10, top paragraph, fourth sentence.* Water Use Efficiency Program element may indirectly impact current land uses in southern California. The draft PEIS/EIR does not

examine what will be required by southern California to retain recycled water during the rainy season. In fact, additional storage and conveyance systems might be necessary.

- *PEIS/EIR, Chapters 5 through 7, General Comment.* What are the significant, indirect environmental effects associated with the alternatives? This type of impact analysis is required by 40 CFR 1502.16(b) of the CEQ Guidelines to NEPA.
- *PEIS/EIR, Chapter 6.1, Fisheries and Aquatic Ecosystems. Page 6.1-58.* The draft PEIS/EIR should address the indirect impacts on southern California streams that would no longer receive wastewater redirected for further treatment and reuse due to shortfalls in source water supply due to CALFED's program.
- *Water Use Efficiency Program Plan.* The Draft PEIS/EIR did not address the indirect impact or mitigation of this program to local water agencies. The levels of active, agency-assisted conservation program activity required to even approximate the estimates of potential conservation discussed in the draft PEIS/EIR would require substantial supplementary funding to be cost-effective and financially feasible from the perspective of individual agencies.

  CUWCC will require significant financial, staff and technical resource assistance if it is to undertake credible, rigorous reviews of agency cost-effectiveness filings. Especially challenging in this respect are the following necessary tasks:[6]

  - Developing a methodology for ensuring that utilities employ comparable methods for identifying and estimating the avoided costs associated with conservation.
  - Attaching dollar values to those environmental costs and benefits which can be valued in dollar terms, and developing suitable methods for incorporating, into the cost-benefit calculus, those which cannot easily be valued in economic terms.
  - Developing criteria and procedures that can be used to meaningfully and equitably assess agency-proposed "at least as effective as" alternatives to existing BMPs.

There is a Disconnect Between the Analytical Data Presented and the Potential Impacts/Conclusions Reached in the Analyses

- *PEIS/EIR, Chapter 3. Summary Comparison of Environmental Consequences, Page 3-1, (section 3.1, Environmental Resource Impacts and Economic and Social Effects), first paragraph.* This section briefly summarizes how the analysis was carried out among the alternatives. As stated previously, the CEQA/NEPA alternative analysis is flawed in its method of comparing potential impacts (i.e., equating no program alternative as being the same as baseline conditions; emphasizing the comparison between the no program alternative with the other program alternatives rather than with the baseline conditions; and not determining which of the alternatives avoids or substantially reduces the significant impacts of the Preferred Program Alternative).
- *PEIS/EIR, Chapter 4. Guide to Impact Analyses and Description of Land Use Assumptions, Page 4-3, (Affected Environment/Existing Conditions), second sentence.* This sentence indicates that the most recent information was used to describe the current conditions. According to recent State CEQA Guidelines (section 15125[a]): "An EIR must include a

[6] Metropolitan believes the EIR/EIS significantly underestimates the difficulty of these necessary tasks.

description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published. . . ." The document needs to comply with the State CEQA Guidelines for baseline conditions.

- *PEIS/EIR, Chapter 5.1 and Attachment A*. All No Action and Program Alternatives studies, as well as the existing conditions study assume that CVPIA related AFRP upstream and Delta actions apply to current and future operations. The Delta AFRP actions include a number of operating restrictions that may directly affect the ability of the SWP to export Delta water, including VAMP, additional X2 days, ramping of exports, and July export restrictions. These requirements exceed the operating requirements specified in the 1995 WQCP. Currently, there is no legal basis compelling the SWP to meet these operating requirements. Further, as stated in the draft PEIS/EIR, the provisions of the November 1997 Final Administrative Proposal on the Management of Section 3406(b)(2) is used as the basis for all CVPIA related actions. Since the date of the Notice of Preparation of the draft PEIS/EIR was in March of 1996, there is a CEQA issue regarding using this assumption for the existing conditions description.

- *PEIS/EIR, Chapter 7.11 Cultural Resources, Page 7.11-1 (section 7.11.1, Preferred Program Alternative), bottom paragraph, second sentence*. The logic of this sentence is faulty. Simply because there might be minor construction (e.g., revegetation projects and improved fish passages) involving little surface disturbance does not mean that there would be "slight" impacts on cultural resources. Depending on the location of the site, type of cultural resource involved, and its potential landmark status, a range of impacts may occur from none to significant. Revegetation might involve minor amounts of grading that could affect an important buried archaeological site or an historic farming structure that might have to be moved. The general statements made on this page and page 7.11.2 are too simplistic and ignore the fact that with large scale projects there may be some flexibility of avoiding the cultural resources, whereas, there may be little flexibility in avoiding impacts to historic levees that may need to be removed.

- *PEIS/EIR, Chapter 7.11 Cultural Resources, Pages 7.11-11 through 7.11-15 (section 7.11.7, Consequences: Program Elements Common to All Alternatives)*. This section presents simplistic conclusions that are not always based on reasonable evidence. For example, on page 7.11.15, it is concluded that there will be indirect, growth inducing impacts on cultural resources in the other SWP and CVP service areas from the delivery of water to nonagricultural areas. This is simply not correct. Water conveyance to southern California accommodates projected growth in the region as forecasted by the State and SCAG. Population increases are primarily driven by socio-economic factors and regardless of the water conveyance systems. In addition, with regards to water use efficiency, there could potentially be indirect impacts to cultural resources to the other SWP and CVP service areas that have not been addressed in the draft PEIS/EIR. That is, if large amounts of recycled/reclaimed water are available in southern California during the rainy season, there is no place to store such supplies. Hence, additional storage and conveyance systems could be needed and may result in additional impacts to cultural resources.

- *PEIS/EIR, Chapter 7.11 Cultural Resources, Page 7.11-17, top of page:* "No potentially significant unavoidable impacts on cultural resources are associated with the Preferred Program Alternative." However, there is also a contradiction to this on page 7.11-18 (second

paragraph) stating: "Cultural resources that are affected during the implementation of any alternative would be lost for posterity. Data recovery techniques ameliorate this loss somewhat. Cultural resources cannot be replaced or reproduced once they are lost, regardless of mitigation activities." Hence, isn't it really the case that with all of the alternatives, including the Preferred Program Alternative, that there will be potentially significant unavoidable impacts on cultural resources?

- *PEIS/EIR Page 5.1-38, last paragraph*: When comparisons of Delta inflow are made, peak average monthly values are used. The EIR/EIS lacks foundation for focusing on a specific peak month for Delta inflow.

The Discussion on What is the Environmentally Superior/Environmentally Preferable Alternative is Inadequate and Not Supported

- *PEIS/EIR, Chapter 1, Project Description. Page 1-7, first paragraph.* The draft PEIS/EIR should explain why reducing entrainment losses at the export pumps is not explicitly mentioned in the list, as this is stated to be a major fish problem in the Delta and is used often as a relationship to evaluate alternatives?

- *PEIS/EIR, Chapter 2. Alternatives Descriptions.* The draft PEIS/EIR should describe the alternative elimination in terms of fish recovery and the relationships and impacts discussed in Chapter 6 for environmental consequences for fish and aquatic ecosystems. Those environmental consequences do not seem to be carried forward to Chapter 2. Also, the draft PEIS/EIR should develop the reasoning behind fish recovery not meeting goals, including a disclosure of the environmental consequences information applied from Chapter 6.

- *PEIS/EIR, Chapter 2. Alternatives Descriptions, Pages 2-20 through 2-23 (section 2.3, Environmentally Preferable Alternative).* This discussion falls short of what is required to ascertain which alternative is the environmentally preferable under NEPA and the environmentally superior under CEQA. There is no comparison of the alternatives (i.e., no action, Alternatives 1 through 3, and the preferred) with respect to potentially significant impacts/effects. A matrix illustrating the overall impact categories for each alternative is sorely needed here to simplify the discussion. There is also a brief dismissal of the impacts (both adverse and beneficial) associated with the dual-Delta conveyance configuration in Alternative 3 by stating ". . . other evidence indicates that such a [dual-Delta] conveyance configuration can cause in-Delta water quality problems. In addition, during scoping and public meetings, some stakeholders and agencies voiced concern that moving water around the Delta instead of through it may cause difficulty in ensuring the appropriate operation of such a facility, create impacts from construction, increase the amount of land needed for the facility, provide an engineered solution when non-structural modifications and reoperation of existing facilities may provide similar benefits." This information, alone as stated, does not provide substantial evidence that Alternative 3 is or is not the environmentally preferable/superior alternative. Nothing is specifically mentioned about Alternative 2. Again, there is no information relating to what are the significant impacts for each alternative to make a fair comparison. In addition, section 15064(f)(5) of the State CEQA Guidelines states: "Argument, speculation, unsubstantiated opinion or narrative, or evidence that is clearly inaccurate or erroneous, or evidence that is not credible, shall not constitute substantial evidence. Substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts." The discussion about

Alternative 3 does not provide substantial evidence to dismiss this alternative or other feasible alternatives from being considered as potentially environmentally superior. This section needs further information to support its conclusions.

- *PEIS/EIR, Chapter 2. Alternatives Descriptions, Page 2-22, second paragraph, first sentence.* The draft PEIS/EIR should state whether this is the text devoted to eliminating Alternative 2. Also, the draft PEIS/EIR should specify who has the concern, the specific future water quality objectives of concern, why they are believed unachievable, and the adverse effects on fish recovery involved in achieving the water quality objectives. The draft PEIS/EIR should describe the types and degrees or levels of harm that amount to adverse effects on the recovery of listed fish species due to actions to achieve water quality objectives.

- *PEIS/EIR, Chapter 2. Alternatives Descriptions, Page 2-22, second paragraph, second sentence.* The draft PEIS/EIR should briefly state the substantial evidence, with references, that suggests a dual-Delta conveyance may improve export water quality and fish recovery. Does it not appear from information in the draft PEIS/EIR that fish recovery would be more effective under the dual-Delta alternative than the Preferred Program Alternative, because the dual-Delta alternative would reduce entrainment via a relocated intake, and increase productivity and species movement via reestablishment of net natural flow directions? Are not these entrainment indications confirmed by mass tracking (Tables 5.2-7 and –8) model data, which indicate more particle entrainment at Hood is balanced by less entrainment at south Delta facilities of Vernalis particles or central Delta particles, and that together there would be less entrainment than with the Preferred Program Alternative. Doesn't the QWEST data (Figures 5.2-46, -64 and -65) also indicate more net natural downstream flow direction, especially if the Preferred Program Alternative has no Hood diversion? It would help to understand the flow direction effects and the potential to increase productivity, to have figures showing the estimated flows under the various alternatives.

- *PEIS/EIR, Chapter 2. Alternatives Descriptions, Page 2-22, second paragraph, second sentence.* How much less effective does CALFED expect fish recovery to be with the Preferred Program Alternative than the dual-Delta alternative? The draft PEIS/EIR should explain the reasonableness of abandoning more effective recovery of listed fish species as a solution to fish and wildlife problems, which is counter to one of CALFED's three main charges from the Accord.

- *PEIS/EIR, Chapter 2. Alternatives Descriptions, Page 2-22, second paragraph, second sentence.* The draft PEIS/EIR should disclose the potential in-Delta water quality problems involved, how they would be caused, and why they are not mitigable. The draft PEIS/EIR should disclose why it is reasonable to sacrifice potentially more effective fish recovery and improved water quality for domestic and agricultural use locally and elsewhere, for the potential in-Delta water quality problems.

- *PEIS/EIR, Chapter 2. Alternatives Descriptions, Page 2-22, second paragraph, second sentence.* The draft PEIS/EIR should disclose how results of the CALFED Diversion Effects Fish Team draft report, dated June 25, 1998, were applied to the draft PEIS/EIR alternatives evaluation. The DEFT report was an effort of several technical experts to evaluate CALFED's alternatives. The DEFT evaluated salmon, striped bass and Delta smelt, and concluded that Alternative 3 was best for salmon and perhaps for Delta smelt (high

uncertainty), but that no alternative would restore the striped bass. For salmon, the report indicates Alternative 3 scores the most points for the Sacramento River chinook when new storage is considered, and is about tied with Alternative 1 without new storage. Improved interior Delta survival makes a difference here. For San Joaquin salmon, Alternative 3 scores the most points, with its entrainment reduction and improved interior Delta survival having the larger differences with other alternatives.

- *PEIS/EIR, Chapter 2. Alternatives Descriptions, Page 2-22, second paragraph, third sentence.* The draft PEIS/EIR should explain the impacts of the following:
  - Construction impacts that are not mitigable.
  - Land use needed for the facility given all of the land being taken out of production elsewhere for restoration to more effectively achieve recovery of listed fish species.
  - The specific non-structural modifications and reoperations of existing facilities that more effectively achieve the recovery of listed fish species than the dual-Delta alternative.
- *PEIS/EIR, Chapter 2. Alternatives Descriptions, Page 2-22, third paragraph.* Disclose what prevents CALFED from more aggressively studying an isolated facility within the first stage? The draft PEIS/EIR should explain on the Hood diversion, which is an option that may lead CALFED to "achieve [threatened and endangered] fish recovery more effectively," and help solve the fish and wildlife problems in the Delta, per the Accord.
- *PEIS/EIR, Chapter 2. Alternatives Descriptions, Page 2-22, fourth paragraph, first sentence.* Explain "In the light of the technical and feasibility issues discussed above...." The draft PEIS/EIR should disclose the trade off and logic regarding these issues that occurred at CALFED "in this light."
- *PEIS/EIR, Chapter 2. Alternatives Descriptions, Page 2-22, fourth paragraph, second sentence.* The draft PEIS/EIR should explain why a path to "achieve fish recovery more effectively" would be abandoned for at least four to seven years. Also, the draft PEIS/EIR should disclose the fishery recovery goals and what prevents a determination at this time based on all the impact and mitigation information, that they cannot be met. The draft PEIS/EIR should explain what happened to all of the Chapter 6.1 environmental consequences assessment information in this alternatives evaluation and selection.
- *PEIS/EIR, Chapter 2. Alternatives Descriptions, Page 2-22, last paragraph, second sentence.* The draft PEIS/EIR should disclose the specific "additional information" such as field data, modeling results, or concurrence, that needs to be available to determine whether fish recovery goals can be met within the first four years of Stage 1, or thereafter. The draft PEIS/EIR should specify what amounts to a determination that fish recovery goals can be achieved, and what assurances there are that such a determination can be or will be made at all within the Stage 1 period. The draft PEIS/EIR should state who will provide this information, who will make the determination, and by when. The draft PEIS/EIR should explain why is it reasonable to expect within Stage 1 the availability of such new information or the determination that the fish recovery goals can be achieved, given the years and decades of existing data and analyses, and the lack of a determination on achievement of recovery goals.

- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Pages 6.1-15 through 6.1-30.* The draft PEIS/EIR should explain how the relationships of the aquatic ecosystems and species responses to program actions, and associated significance criteria reasonably reflect substantial and significant adverse effects, over the range of measured or modeled physical or other factors that change between alternatives. Disclose or reference CALFED checks of the response relationships for significant or reasonable responses to program actions expressed as the modeled and measured data. Disclose any references used.
- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Page 6.1-15.* The draft PEIS/EIR should disclose how these particular action-response relationships are the reasonable ones, including any references.
- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Page 6.1-15.* The draft PEIS/EIR does not appear to present a fish recovery relationship to program actions. However, the draft PEIS/EIR refers to fish recovery when justifying selection of the preferred alternative in Chapter 2. The draft PEIS/EIR should explain the relationship of fish recovery to program actions and environmental consequences.
- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Page 6.1-15, third paragraph, second sentence.* The draft PEIS/EIR should explain how the fisheries and aquatic ecosystems relationships used for the assessments in this chapter "are based on the best available information." This draft PEIS/EIR impacts section contains no references to the fisheries and aquatic ecosystems scientific literature for 1999 or earlier besides a March 1998 draft Technical Report. That technical report contains no scientific literature references for 1998, one for 1997, and only four for 1996. There are dozens of scientific papers on Delta fish and the aquatic ecosystem during these years in addition to numerous articles in the IEP newsletter, as evidenced by the attached recent scientific literature list (See page 57).
- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Page 6.1-15, third paragraph, second sentence.* The draft PEIS/EIR should disclose the data, graphs, statistics, and references to demonstrate or support the relationships.
- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Page 6.1-16, first paragraph, first bullet.* Explain what are natural pattern and magnitude. State whether a natural pattern means peaks and lows at unimpaired flow times, and whether magnitude applies to annual extremes or smaller time steps. These are unclear as presented in the text.
- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Page 6.1-16, third paragraph, third sentence*. The draft PEIS/EIR should state whether historical pre-1944 low-flow salinity intrusion is envisioned or proposed.
- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Page 6.1-20, second paragraph, first sentence*. The draft PEIS/EIR should explain why reduced contaminant input is the primary avenue for reactivating and maintaining ecosystem process and structures that sustain healthy biota. The draft PEIS/EIR should explain why other processes are not of equal or greater importance?
- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Page 6.1-24, last bullet*. The draft PEIS/EIR should include the relocation of diversions to areas of less density as well as beyond a species distribution.

- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Page 6.1-25, second bullet.* The draft PEIS/EIR should include re-operations of diversions to minimize a species' exposure.
- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Page 6.1-28, fifth paragraph, second sentence.* The draft PEIS/EIR should define the key phrase "fitness of natural and spawning populations."
- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Page 6.1-30, first paragraph, last sentence.* The draft PEIS/EIR should explain why halting or reversing downward trends in native species is compared to existing conditions but not to the No Action Alternative.
- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Page 6.1-50, first paragraph, second sentence.* CALFED should correct the apparent inconsistency of this suggestion with that of the modeled data in Figures 5.2-26 and 5.2-46, which indicate more positive and less negative QWEST with Alternative 3 or the Preferred Program Alternative than with No Action. The draft PEIS/EIR should explain why Alternative 3 is better at avoiding reverse QWESTs than the Preferred Program Alternative, per Figures 5.2-26, -46, -64, and -65? The draft PEIS/EIR should explain why the speculation on increasing reverse QWEST contrary to the modeled data, and the adverse effects of decreased productivity, increased entrainment, and impaired movements, is consistent with the modeled data approach stated in the Assessment Methods (draft PEIS/EIR, Page 6.1-15).
- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Page 6.1-50, third paragraph.* The draft PEIS/EIR should explain why habitat structure and degradation effects may be mitigable for dredging the Mokelumne River channel (draft PEIS/EIR, Page 6.1-53, third paragraph, last sentence) but are definitely mitigable for dredging Old River channel?
- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Page 6.1-52, second paragraph, fourth sentence.* The draft PEIS/EIR should list the "other factors" that would reduce survival.
- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Page 6.1-52, last paragraph.* The draft PEIS/EIR should state what is "To the contrary," as it is unclear. No adverse effects are mentioned in the paragraph for the lower net flow in the Sacramento River lower net downstream flow above the Rio Vista criterion. Are changes that stay within criteria considered significant adverse effects? The draft PEIS/EIR should explain why the potential effects mentioned for Alternative 3 are not mentioned here?
- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Page 6.1-52, second paragraph.* The draft PEIS/EIR should refer to an explanation that demonstrates more an increase in the proportion of Sacramento River flow entering Georgiana Slough. The draft PEIS/EIR should explain why the Georgiana Slough proportion would not decrease since less Sacramento flow approaches the Georgiana Slough split and the mainstem channel-Georgiana Slough flow split should remain the same. Further, there is a great deal of mixing in Sacramento River, so would not the cross-channel distributions of fish remain the same as if the Hood diversion was 0 cfs?
- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Page 6.1-53, second paragraph, second sentence.* The draft PEIS/EIR should specify whether these focused studies have to determine that significant adverse impacts, i.e., entrainment risk and predation are avoidable,

and that habitat use is understood, before the Mokelumne setbacks can be built and maintained under any alternative. State what is enough to learn about habitat use to allow setback construction.

- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Page 6.1-53, third paragraph.* The draft PEIS/EIR should note that dredging impacts are short-term except for ecosystem structure changes.
- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Pages 6.1-55 and 6.1-56.* The draft PEIS/EIR should disclose why Alternative 3 cannot be done in phases, starting now, rather than simply writing off potential adverse effects as significant unavoidable impacts.
- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Page 6.1-55, first paragraph, second sentence.* Channel enlargement impacts causing more entrainment than the No Action Alternative via greater reversed flows, are not the same as for the Preferred Program Alternative (page 6.1-50, second paragraph). Mass tracking results indicate less entrainment of particles released at Prisoner's Point or Vernalis, under high or low inflow conditions, with Alternative 3 than with the PPA, Alternatives 1 or 2, or No Action, due to reversed flows (Tables 5.2-7 and 8). The particle entrainment estimates for Alternative 3 versus the Preferred Program Alternative under high inflow conditions were 0 versus 51 percent and 40 versus 96 percent, for Prisoner's Point and Vernalis releases, respectively. Under low inflow conditions, respective estimates for Alternative 3 versus the Preferred Program Alternative were 7 versus 81 percent and 6 versus 82 percent. It appears that Alternative 3 would entrain much less the Preferred Program Alternative. The draft PEIS/EIR should state why it considers Alternative 3 has similar impacts as the Preferred Program Alternative even with those seemingly large difference in entrainment potentials.
- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Page 6.1-55, first paragraph, second sentence.* The draft PEIS/EIR should explain how Alternative 3 impacts due to DCC operations, Delta channel capacity, and south Delta flow control barriers are unavoidable, while the Preferred Alternative has them as contingent on monitoring and studies that demonstrate avoided impacts.
- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Page 6.1-56, second paragraph, third sentence.* The draft PEIS/EIR is addressing the productivity effects of all alternatives based on March, long-term 1-km increases from No Action, and all floating between 64 and 66km (Figure 5.2-70). The draft PEIS/EIR should explain how an X2 increase of 1km or from 65 to 66km would probably have a significant adverse effect on productivity, migratory species, and species movement. How would the change weigh against productivity gains from natural net flows reestablished in the central and southern delta, including San Joaquin and Old rivers?
- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Page 6.1-56, second paragraph, second sentence.* The draft PEIS/EIR should explain what "potentially increases reduced flow" means, and whether the flow should increase or decrease.
- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Page 6.1-56, second paragraph, fourth sentence.* The draft PEIS/EIR should disclose how migratory species in particular, are "adversely affected," as the text is unclear.

- *PEIS/EIR, Attachment A, Page A-21.* The draft PEIS/EIR should disclose the rationale behind the proposed ecosystem restoration target flows, including the months, durations, and flows.
- *PEIS/EIR, Attachment A, Page A-24.* The draft PEIS/EIR should disclose the rationale behind the Alternative 2 assumptions for Hood diversions under criteria A and B, as their disclosure is not apparent.

The Overall Comparison Between Each Of the Alternatives is Obscured by Not Evaluating Alternatives as a Whole

- *PEIS/EIR.* There is no overall comparison of the alternatives in the PEIS/EIR with respect to potentially significant impacts/effects. Instead, they are assessed separately by program element and geographic region for each environmental category. The rationale is that because the Program elements (excluding conveyance) are the same under all alternatives, so are the impacts. This rationale ignores the synergistic differences (e.g., as a result of the conveyance system and adaptive management) that will result in some real differences among the alternatives. In addition, this approach obscures the overall effect of an alternative. Each alternative should be assessed to a sufficient level of analysis to allow comparison of alternatives and their environmental impacts. Each alternative should be separately assessed in its entirety and then compared with the other alternatives.
- *PEIS/EIR, Chapter 3. Summary Comparison of Environmental Consequences, Page 3-6, sections 3.5.1--3.5.4.* While it is helpful to have the cumulative impacts identified by geographical region, this "splintering" is not helpful in the overall analysis for each alternative. The cumulative impacts should be presented for each of the entire alternative "packages" rather than region by region for a fair comparison amongst the alternatives.

The Significance Threshold Criteria Used may not be the Most Appropriate to Judge the Significance of an Environmental Impact

- *PEIS/EIR, Chapter 3. Summary Comparison of Environmental Consequences, Page 3-3, first paragraph, first sentence.* List the criteria used in the evaluation of economic and social effects summarized in Table 3-4. Merely stating that professional judgment was employed is too vague and does not provide full disclosure on assumptions. The professional judgment was based on many factors. Please list those factors.
- *PEIS/EIR, Chapter 4. Guide to Impact Analyses and Description of Land Use Assumptions, Page 4-6, (Cumulative Impacts), second paragraph, second sentence, item (2).* Merely stating that professional judgment was employed is too vague and does not provide full disclosure on assumptions. The professional judgment was based on many factors. Please list those factors.
- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Page 6.1-15, third paragraph, second sentence.* The draft PEIS/EIR should disclose how in spite of "a high degree of uncertainty relative to action and response mechanisms," these relationships were still useful in relating program actions to responses and significance, and in discriminating comparisons of impacts among alternatives and to existing conditions.
- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Page 6.1-15.* The draft PEIS/EIR should disclose what relationships are really useful for establishing significant adverse impacts after the uncertainty and counter-balancing forces are addressed. These

relationships descriptions are often too confounding to understand how fisheries and aquatic ecosystem effects were determined and how those effects could influence alternative selection.

- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Page 6.1-29, third paragraph.* The draft PEIS/EIR should disclose the relationship of program actions to species response, and not just give a fitness criterion. This discrete criterion is inconsistent with the rather continuous nature of other relationships. The draft PEIS/EIR should disclose how many is too many harvested, and effects of different harvest levels on the recovery of listed species. The draft PEIS/EIR should disclose whether harvest is the primary avenue for reactivating and maintaining ecosystem process and structures that sustain healthy salmon populations in the Bay/Delta, as over half of the population is typically harvested before it can spawn.

- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Page 6.1-30, second paragraph.* The draft PEIS/EIR should explain what "substantially" and "degrades" mean in each of these criteria where they are used. The draft PEIS/EIR should explain how much substantial effect is considered significant, or that it is any effect at all if this is the case. The draft PEIS/EIR should use references to ensure scientific integrity and to allow the public to understand the basis for the criteria and effects.

- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Page 6.1-30, second paragraph.* The draft PEIS/EIR should disclose how fish recovery goals, which are used to explain away alternatives, relate to these significance criteria. The discussion of the harm criterion should include how incidental take permits can be issued for lawful activities.

- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Page 6.1-30, second paragraph, last sentence.* The draft PEIS/EIR should define "considerable effects."

- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Page 6.1-56, second paragraph, last sentence.* The draft PEIS/EIR should explain how impacts can be unavoidable if they are only potential impacts, which seems to imply that the impacts may not occur nor be significant.

- *PEIS/EIR, Chapter 7.11 Cultural Resources, Page 7.11-1, (section 7.11.1, Summary), third paragraph.* This paragraph indicates that impacts to cultural resources are evaluated as minor, moderate, or major and relate to the intensity of the action. This is an improper evaluation as NEPA and CEQA require that the impact be addressed as one of the following: no impact, less-than-significant impact, less-than-significant impact with mitigation measures incorporated, potentially significant impact, or significant impact. There is nothing in the acts that define minor, moderate, or major impacts. The evaluations in this chapter do not provide full disclosure or aid in the decision making of the documentation regarding environmental effects.

- *PEIS/EIR, Chapter 7.11 Cultural Resources, Page 7.11-11 (section 7.11.5, Significance Criteria).* The draft PEIS/EIR uses the definition of importance as defined by CEQA (section 21083.2[g]). This section is strictly for unique archaeological resources. This is too narrow a criterion to employ. It does not take into account other important cultural resources, including historic structures or areas. Hence, the CEQA analysis for potential impacts to cultural resources should follow section 15064.5 of the State CEQA Guidelines

(i.e., "Determining the Significance of Impacts on Historical and Unique Archeological Resources).

Mitigation Measures are not Consistently Presented

- *PEIS/EIR, Chapters 5 through 7, General Comment.* The use of the term "mitigation strategies" is inappropriate under CEQA and NEPA. While specific mitigation measures may not be applicable for the programmatic EIS/EIR document, programwide mitigation measures are appropriate, as noted in the State CEQA Guidelines (section 15168[b][4]). Once a decision/certification has been determined with respect to the programmatic EIS/EIR, the decisionmaking body of CALFED will also have to act on the mitigations. For those mitigations adopted, a monitoring and reporting/enforcement program must also be adopted (section 15091[d] of the State CEQA Guidelines and 40 CFR 1505.2[c] of the CEQ Guidelines to NEPA). The EIS/EIR needs to provide a "menu" of potential programwide mitigation measures available to the proposed CALFED Program, as well as the implications (i.e., significant impacts?) of implementing those measures.

- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Page 6.1-50, third paragraph, last sentence.* The draft PEIS/EIR should disclose the feasible mitigation measures, and the assurances and levels for mitigation to less-than-significant levels for Delta channel dredging. The draft PEIS/EIR should describe the potential impacts of these mitigation measures.

- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Page 6.1-51, last paragraph, last sentence.* The draft PEIS/EIR should disclose the feasible mitigation measures and the assurances, and levels for mitigation to less-than-significant levels for south Delta flow control barriers. The draft PEIS/EIR should describe the potential impacts of these mitigation measures.

- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Page 6.1-51, second paragraph, second sentence.* The draft PEIS/EIR should disclose how one can reasonably expect that South Delta Flow Control barrier operations adverse impacts of increased entrainment, reduced productivity, and impaired species movement, can be made avoidable through future monitoring and focused studies.

- *PEIS/EIR, Chapter 6.1. Fisheries and Aquatic Ecosystems, Page 6.1-53, third and fourth paragraphs, last sentence.* The draft PEIS/EIR should disclose the feasible mitigation measures and the assurances, and levels for mitigation to less-than-significant levels for the Hood to Mokelumne channel setbacks or dredging. The draft PEIS/EIR should describe the potential impacts of these mitigation measures.

- *PEIS/EIR, Chapter 9 Mitigation Strategies Monitoring Plan.* While project-specific mitigation measures are mentioned as steps, there is no commitment on what kinds of program-level mitigation measures are being proposed for this Program. This provides no direction for future tiered documentation. As noted in the State CEQA Guidelines (section 15168[b][4]), one of the advantages of a Program EIR is that it allows: ". . . the lead agency to consider broad policy alternatives and program wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts." This section does not comply with the State CEQA Guidelines. The draft PEIS/EIR needs to

provide feasible program wide mitigation measures for those environmental categories with potentially significant impacts.

- *PEIS/EIR Page 5.3-21, first paragraph.* CALFED states that program effects are considered beneficial if implementing the Preferred Program Alternative would result in the reverse of poor water quality conditions where beneficial uses and/or regulatory standards are not being attained, or there are undesirable effects on public health. However, in the presentation of modeling data in section 5.3 of the PEIS/EIR CALFED has arbitrarily defined a significant impact to be a 10 percent change in salinity levels. A 10 percent change in salinity is an arbitrary significance threshold. CALFED must develop water quality significance thresholds based on water quality improvement and public health protection objectives.

Mitigation Measures are Confusing and Inappropriate.

- *PEIS/EIR Page 5.3-4, Mitigation Strategies #2 and #3.* Releasing water from storage reservoirs to improve water quality should only be considered as a mitigation strategy if it would result in no impacts on water supply reliability.

- *PEIS/EIR Page 5.3-4 Mitigation Strategy #4.* Improving water treatment facilities, either at the point of consumption or at the source, to remove TOC.

  It is unclear as to what is meant by the "point of consumption". Does this refer to residential and commercial plumbing fixtures? If so, point-of-use treatment devices could theoretically be installed on every faucet (or water tap) throughout California. Some point-of-use treatment devices are available which use granular activated carbon or membranes to remove TOC. The feasibility and cost of this approach are uncertain.

  It is also unclear as to what is meant by "at the source". Does this mean construction of treatment facilities within the Delta itself? If so, this approach is possible but it may be cost prohibitive depending on the number of treatment facilities required. Also, existing infrastructure does not exist, so in addition to treatment facilities, conveyance, pumping, and distribution systems may also have to be constructed.

  Upgrading existing water treatment facilities for TOC removal would also be an option. TOC removal can be achieved using enhanced coagulation, granular activated carbon, or membranes (reverse osmosis or nanofiltration membranes). Enhanced coagulation requires elevated coagulant dosages to be used at conventional water treatment plants (i.e. coagulation, flocculation, sedimentation, and filtration). Enhanced coagulation may also require significant capital improvements including expanded chemical feed and storage facilities, chlorine contactors, sludge processing equipment, and corrosion control measures. The cost for enhanced coagulation at Metropolitan's facilities is about $40 per acre-ft. As is the case for most treatment process cost estimates, they are site-specific.

  Upgrading existing water treatment plants with granular activated carbon or membrane facilities is another way to reduce TOC. Both technologies are extremely effective at TOC removal, although expensive. Cost estimates for Metropolitan's plants are $205 - $290 per acre-ft for GAC and $350 - $450 per acre-ft for membranes. Again, treatment costs are site-specific and will vary from one location to the other

- *PEIS/EIR Page 5.3-4 Mitigation Strategy #5.* Using innovative, cost-effective disinfection processes (for example, ultrafiltration, UV irradiation, and ozonation – in combination with other agents) that form fewer or less harmful DBPs.

  Ultrafiltration is not a disinfection process. It is, however, an effective process for physically removing pathogens from water supplies. After treatment with ultrafiltration (or any other membrane process), the required disinfectant dose for microbial inactivation may be significantly less because most of the microbes have already been removed by the membrane. If less disinfectant is used, then fewer DBPs may be formed.

  UV radiation is a new and promising technology for the disinfection of drinking water supplies. Research to date indicates few, if any, DBPs are formed after UV irradiation. However, the technology is still in its infancy and deployment into the drinking water industry is still years away (possibly 5 to 10 years). Many UV issues still need to be resolved including UV dose measurement techniques, equipment reliability, scale-up concerns, and precise dose/response curves for pathogen inactivation.

  Ozone is a proven disinfection technology that produces fewer DBPs than chlorine. One drawback to the use of ozone is that it may react with bromide to form bromate. Bromate will be regulated in the near future. Bromate formation during ozonation may be controlled through chemical addition of acid or ammonia. The cost for ozone at Metropolitan's plant is approximately $40 per acre-ft. Costs to implement ozone at other facilities may vary significantly.

The Summary Tables Should Provide Information For All Alternatives And Not Just The Preferred Alternative

- *Executive Summary Technical Appendix, Summary Table.* The summary table on pages ES-17 through ES-20 lists the beneficial consequences and the potentially adverse consequences of each environmental resource evaluated in the revised draft PEIS/EIR. No attempt is made to identify the significant or potentially significant effects associated with the preferred program alternative or with the other alternatives. In addition, the table lacks the corresponding proposed program-wide mitigation measures or alternatives to either reduce or avoid each significant effect. Therefore, to comply with section 15123(b)(1) of the State CEQA Guidelines, the summary table needs to reflect this information (i.e., significant impacts and proposed mitigation measures/alternatives).

- *PEIS/EIR, Chapter 3. Summary Comparison of Environmental Consequences, Page 3-2, (section 3.1.2, Summary of Beneficial Impacts).* An analysis of beneficial impacts/ effects is not required by either CEQA (section 15126 and 15130 of the State CEQA Guidelines) or NEPA (40 CFR 1502.14 & 1502.16). However, 40 CFR 1508.8 notes: "Effects may also include those resulting from actions which may have both beneficial and detrimental effects, even if on balance the agency believes that the effect will be beneficial." Therefore, to comply with NEPA by objectively evaluating all of the alternatives in the EIS, the draft PEIS/EIR needs to present the beneficial impacts for all of the alternatives and not just the Preferred Program Alternative.

- *PEIS/EIR, Chapter 3. Summary Comparison of Environmental Consequences, Page 3-2, (section 3.1.3, Summary of Potentially Significant Adverse Environmental Impacts).* To comply with NEPA by objectively evaluating all of the alternatives in the EIS (40 CFR

1502.14[a]), the draft PEIS/EIR needs to present a summary of potentially significant adverse environmental impacts for all of the alternatives and not just the Preferred Program Alternative.

- *PEIS/EIR, Chapter 3. Summary Comparison of Environmental Consequences, Page 3-3, (Table 3-4).* To comply with NEPA by objectively evaluating all of the alternatives in the EIS (40 CFR 1502.14[a]), the draft PEIS/EIR needs to present a summary of economic and social effects for all of the alternatives and not just the Preferred Program Alternative. Also, the table is vague at times by stating "but may cause adverse effects." Please be more specific on what kinds of adverse effects would occur.

- *PEIS/EIR, Chapter 3. Summary Comparison of Environmental Consequences, Page 3-4, (section 3.3, Summary of Short- and Long-term Relationships).* The review of short-term gains versus long-term impacts is a CEQA requirement and not a NEPA requirement. However, to comply with NEPA by objectively evaluating all of the alternatives in the EIS (40 CFR 1502.14[a]), the draft PEIS/EIR needs to present a summary of short- and long-term relationships for all of the alternatives and not just the Preferred Program Alternative.

- *PEIS/EIR, Chapter 3. Summary Comparison of Environmental Consequences, Page 3-5, (section 3.4, Summary of Irreversible and Irretrievable Committments).* To comply with NEPA by objectively evaluating all of the alternatives in the EIS (40 CFR 1502.14[a]), the draft PEIS/EIR needs to present a summary of irreversible and irretrievable commitments for all of the alternatives and not just the Preferred Program Alternative.

- *PEIS/EIR, Chapter 3. Summary Comparison of Environmental Consequences, Page 3-5, (section 3.5, Summary of Cumulative Impacts).* To comply with NEPA by objectively evaluating all of the alternatives in the EIS (40 CFR 1502.14[a]), the draft PEIS/EIR needs to present a summary of cumulative effects for all of the alternatives and not just the Preferred Program Alternative. In addition, the discussion in Section 3.5 indicates that the analysis for cumulative impacts may not follow the latest revisions (October 1998) to the State CEQA Guidelines (Section 15130). For example, Section 15130(a)(2) states: "When the combined cumulative impact associated with the project's incremental effect and the effects of other projects is not significant, the EIR shall briefly indicate why the cumulative impact is not significant and is not discussed in further detail in the EIR. A lead agency shall identify facts and analysis supporting the lead agency's conclusion that the cumulative impact is less than significant." This was not apparently done according to page 3-5, first paragraph under section 3.5, fourth sentence.

- *PEIS/EIR, Chapter 3. Summary Comparison of Environmental Consequences, Page 3-8, Table 3-1 (Summary Comparison of Environmental Consequences).* For comments on this summary table, please refer to the specific comments relating to the environmental impacts associated with the various chapters (5 through 7) of the draft PEIS/EIR.

- *PEIS/EIR, Chapter 3. Summary Comparison of Environmental Consequences, Page 3-21, Table 3-2 (Summary of Beneficial Impacts Associated with the Preferred Program Alternative).* This table should be done for all alternatives and not just the Preferred Program Alternative be objective for all alternatives associated with a NEPA evaluation.

- *PEIS/EIR, Chapter 3. Summary Comparison of Environmental Consequences, Page 3-23, Table 3-3 (Summary of Potentially Significant Adverse Avoidable and Unavoidable Impacts Associated with the Preferred Program Alternative).* The table should be expanded to include columns with proposed programwide mitigation measures and residual impacts after incorporation of mitigation. In addition, this table should be done for all alternatives and not just the Preferred Program Alternative.

- *PEIS/EIR, Chapter 3. Summary Comparison of Environmental Consequences, Page 3-25, Table 3-5 (Summary of Potential Program-Induced Growth Impacts Associated with the Preferred Program Alternative).* This table should be done for all alternatives and not just the Preferred Program Alternative be objective for all alternatives associated with a NEPA evaluation. In addition, water supply and water management activities may not always result in growth inducing impacts. This "YES" needs to be changed to a "NO," unless there is supporting documentation indicating which specific projects and actions would be growth inducing.

- *PEIS/EIR, Chapter 3. Summary Comparison of Environmental Consequences, Pages 3-26 through 3-28, Tables 3-6 through 3-8.* For comments on these summary tables, please refer to the specific comments relating to these issues associated with the various chapters (5 through 7) of the draft PEIS/EIR. These tables should be done for all alternatives and not just the Preferred Program Alternative be objective for all alternatives associated with a NEPA evaluation.

Assumptions Are Not Supported

Technical Data are not Available to Support Assumptions

- *Water Quality Program Plan.* Discussions regarding feasibility and effectiveness of drinking water treatment technologies in several places in the WQPP are not technically accurate and need to be revised. Also, discussions regarding future drinking water regulations need to be revised.

- *Water Use Efficiency Program Plan, Residential Indoor Conservation.* The draft PEIS/EIR adopts DWR's assumption that statewide, residential indoor water use will decrease from an estimated current level of 75 gpcd to 65 gpcd by 2020.[7] It is then assumed that (1) an additional reduction of 5 gpcd (from 65 to 60 gpcd) beyond DWR's estimate can be achieved under the "No Action" alternative;[8] and (2) an additional reduction of at least another 5 gpcd (from 60 to 55 gpcd) can be obtained with CALFED assistance.[9] Collectively, these phased increments are expected to yield total usage reductions of between 260,000 and 280,000 acre-feet annual by 2020.

  - These estimates assume a current baseline usage value of 75 gpcd. However, as noted in Metropolitan's comments on the March 1988 EIS/EIR and as mentioned peripherally in the June 1999 *Draft Water Use Efficiency Program Plan*, there are indications that some areas of the state have already reduced indoor consumption to around 65 gpcd. Indeed, AWWARF's recently completed residential end-use study suggests that average indoor water use among single family households in three different parts of Metropolitan's

[7] *Draft Water Use Efficiency Program Plan,* June 1999, p. 5-9.
[8] *Ibid.*, p. 5-10.
[9] *Ibid.*, p. 5-11.

service territory may already be around 62 gpcd. While it is admittedly not clear how well these estimates generalize to other areas served by Metropolitan, they do raise important questions about DWR's assumption that the urban BMPs can produce a 10 gpcd reduction in future use. In other words, a substantial portion of future savings assumed by CALFED to be available under the "No Action" alternative may have already been achieved. If so, the year 2020 estimates overstate future conservation potential.

- The second-stage reduction (from 65 to 60 gpcd) anticipated by CALFED under the "No Action" alternative is assumed to result from the following processes: the implementation of additional cost-effective BMPs which have not yet been implemented; measures that will be adopted for reasons other than water savings, such as ULFT retrofits necessitated by remodeling; and the implementation of other measures enabled by supplemental funding. There are at least three problems with these assumptions. First, there is currently no indication that new, cost-effective water efficiency measures capable of achieving these savings will be identified and added to the existing set of BMPs. This does not preclude the future emergence of such technologies. But it seems less than prudent to base estimates of future conservation potential on unspecified or untested measures. Second, CALFED has not identified the sources of supplementary funds that would be required to assist agencies develop and implement new water efficiency measures. Without this, it is speculative, at best, to rely on savings from measures that would depend critically on the availability of supplementary funds.
- The third stage reduction in indoor use (from 60 to 55-50 gpcd), assumed to be attainable with CALFED assistance, is represented as "a realistically achievable level of indoor residential water conservation" which can be attained without altering "existing lifestyle habits."[10] Since this constitutes between a 27 percent and a 33 percent reduction from CALFED's assumed level of current daily indoor use,[11] the feasibility of reducing daily usage to these levels needs to be supported by more than mere conjecture.

- *Water Use Efficiency Program Plan, Commercial, Industrial and Institutional (CII) Conservation.* While the draft PEIS/EIR properly notes several of the problems associated with using aggregate per-capita water use factors in projecting future demand, it nonetheless relies exclusively on these factors in estimating CII conservation savings potential.[12] For reasons noted in the draft PEIS/EIR, and discussed at greater length by others sources,[13] the validity of forecasts based on per-capita use factors is highly problematic. This is especially true when the method is applied to an economically diverse and dynamically evolving area like the South Coast region.
  - Metropolitan questions the feasibility of achieving the percentage reductions in CII use assumed by the draft PEIS/EIR. First, the estimates developed by the 1997 EPA report on which the draft PEIS/EIR relies heavily represent the *maximum theoretical savings* that

[10] *Ibid.*, p. 5-11.
[11] 20/75=0.266 and 25/75=0.333
[12] *Ibid.*, p. 5-17.
[13] See, for examples Billings, R. Bruce and C. Vaughan Jones, *Forecasting Urban Water Demand.* Denver, CO: American Water Works Association, 1966 and Boland, John J., "Forecasting Urban Water Use: Theory and Principles," pp. 77-94 in Baumann, Duane D., Boland, John J., and Hanemann, W. Michael, *Urban Water Demand Management and Planning.* New York, NY: MCGraw-Hill, Inc., 1998.

500 TAF of water recycling is occurs or is under construction. This amount is also referenced on page 2-9 (fourth and fifth paragraphs); page 6-7 (seventh paragraph); page 6-8 (second paragraph and Table 6-1); page 6-11 (first paragraph); page 6-12 (paragraph 1). The "1996 'Survey of Water Recycling Potential', Division of Planning and Local Assistance, Sacramento, CA" is also cited (page 6-11, first paragraph) as the source for this information. The above references also serve as the basis for projections of "base" and "planned" water recycling discussed later in the WUEA and presented in Table 6-12. Metropolitan has commented previously that we disagree with the projections for existing production in Bulletin 160-98 as well as earlier CALFED documents but the DEIR/EIS does not specifically address those comments. We have specifically requested the results of the survey along with analyses of those results that have lead to the various conclusions in those documents and, to date, the requested data and analyses have not been provided. In the absence of a full public disclosure of the basis for the conclusions drawn, the related information presented in the CALFED documents is misleading to decision-makers and must be deleted altogether.

- *Water Use Efficiency Program Plan (WUEPP)*. It is stated in the first paragraph on page 6-6 that "just under 500 TAF of urban water recycling occurs or is under construction in the state." This should be reconciled with the statement in the first paragraph on page 6-11 that "Greater production from existing projects as well as completion of other projects still under construction are expected to increase the base to around 615 TAF by 2020."

- *Water Use Efficiency Program Plan (WUEPP)*. The discussions on pages 6-13 attempt to substantiate an assumption that 50 percent of "planned" wastewater recycling will occur regardless of CALFED's recommendations. This assumption is asserted to be supported by a citation of production under Metropolitan's Local Resources Program and ignores the fact that about 15 percent of the existing production under that program is recovery of degraded groundwater and is not an indicator of recycled wastewater potential. Furthermore, Metropolitan specifically adopted its Local Resources Program as a means of reducing pressure on imported supplies with the anticipation that it would contribute to a Delta solution. Accordingly, the DEIR/EIS should acknowledge those forward-thinking efforts as being integral to a CALFED solution and not a part of the "No Action" scenario.

- *Water Use Efficiency Program Plan (WUEPP)*. The discussion under the second bullet of the first paragraph on page 6-13 provides a basis for concluding that expectations regarding recycling projections should be tempered based on experience with prior results. That discussion does not provide any empirical basis for arriving at the 50 percent factor cited and used in developing the "No Action Increment" and the factor should not be used by CALED to estimate expectations for water recycling.

- *Water Use Efficiency Program Plan (WUEPP)*. The second footnote to Table 6-3 on page 6-16 assumes that future recycling state-wide will be distributed geographically based on historic levels of recycling. This is not consistent with discussions elsewhere (see first paragraph on page 6-13 of the WUEPP and on page 66 of the Phase II Report) that cite aggressive efforts in southern California to develop water recycling. Those efforts have taken advantage of all many of the more favorable opportunities to accomplish water recycling within the limitations of cost, public acceptance and regulatory constraints as well as consumed significant amounts of the wastewater supplies available without implementing

storage options to shift winter wastewater supplies for summer uses. This analysis is fundamentally flawed and must be deleted.

- *Water Use Efficiency Program Plan (WUEPP)*. The following conclusions can be drawn regarding the capital cost of achieving the 2020 projections from expected water recycling in the WUEPP for southern California and summarized in Table 6-3 (Page 6-16):

Without CALFED Solution ("No Action"):

	Incremental Production	% of Wastewater Generated[1]	Cumulative Capital Cost $billions/$/AF[2]
Existing Production	364,000 AF/Y	22%	$1.2[3]
Planned Production Increment	392,000 AF/Y	26%	$3.1
Total:	730,750 AF/Y	48%	$4.3

With CALFED Solution:

	Total Production	% of Wastewater Generated*	Cumulative Capital Cost $billions/$/AF[2]
Low Range	1,106,000 AF/Y	72%	$8.0
High Range	1,566,000 AF/Y	103%	$13.6

[1] Percent of usable wastewater in the Southern California region in 2020 (excludes non-reclaimable wastewater from Point Loma and LACSD Joint Plant and wastewater from the City of Los Angeles Hyperion plant not used by the West Basin recycling projects)

[2] Does not include cost for storage to shift supplies (~$160,000/AF) to account for seasonal "mismatch" (see p. 6-9 of the WUEPP); costs are in 1998 dollars based on cost data from LRP applications received by Metropolitan in 1998

[3] Does not include about $1 billion spent to date for existing recycled water production

As reflected in the above table, the CALFED expectations for the "No Action" scenario suggest that local agencies are expected to recycle one-half of the available wastewater and spend at least $4.3 billion in new construction without receiving any credit for meeting CALFED objectives. Furthermore, they are expected to recycle up to 100 percent of the available usable wastewater and plan to invest a minimum of between $8.1 and $13.6 billion to accrue uncertain benefits from a yet-defined CALFED long-term solution. Recycled water projects, as a rule, require about eight years from the time a the project is constructed to reach their full market potential, which suggests that the above amounts of money must be committed by about 2010 to reasonably meet the CALFED 2020 expectations. These expectations are inconsistent with the statement that CALFED "seeks to identify and encourage regional water recycling opportunities that maximize reuse at minimum cost" as discussed in the second paragraph on page 6-6.

- *PEIS/EIR Page 5.3-11, Summary of Data for Key Water Quality Constituents*. This section contains a very limited summary of water quality occurrence data for water quality constituents of concern. CALFED should clearly point out this limitation at the beginning of the section. Because this section presents only a cursory overview of existing water quality data, it provides an incomplete picture of the water quality conditions in the Delta. CALFED

must provides references for all data and provide information regarding the frequency and time period in which data were collected.

- *PEIS/EIR Page 5.3-25, fifth paragraph.* CALFED states that the Water Quality Program drinking water actions would benefit municipal water suppliers. This is a subjective, unproven statement. The Water Quality Program Plan identifies several limitations with respect to the effectiveness of program actions in achieving drinking water quality improvement (see above comment for page 3-3 of the Water Quality Program Plan). The Final PEIS/EIR must disclose the expected limited effectiveness of the Water Quality Program drinking water actions and the consequences of not meeting its water quality objectives.

- *PEIS/EIR Page 5.3-36, second paragraph.* CALFED must either provide references or fully disclose the fingerprint modeling analyses. The information provided in the text is completely inadequate and does not support the conclusions that are drawn from the fingerprint modeling analyses.

- *Water Quality Program Plan Page 3-5, third paragraph.* We do not agree with the statement that "based on limited data, levels for pathogens in routine sampling of Delta water appear to be lower than national averages" as a statement of fact. CALFED must provide a reference for this statement.

Assumptions Appear Inconsistent with Water Rights Law

- *PEIS/EIR, Chapter 1. Project Description, Page 1-20 (Relationship with Other Ongoing Programs, Water Right Process for CVP and SWP [State Water Resources Control Board])).* The draft PEIS/EIR's assumption as to which parties would benefit from the SWRCB allocating flow responsibility is unclear. However, it suggests that the ERP may obtain additional water through this process. There is no explanation provided as to why any of this water would go to the ERP rather than to existing water right holders. The SWRCB plans to adopt a comprehensive water rights decision that allocates final responsibilities for meeting the 1995 WQCP Bay-Delta flow objectives. On page 1-20, first paragraph, fourth sentence, the Draft PEIS/EIR suggests that flows provided by other water rights holders through this process could be available to the Ecosystem Restoration Program. "It was assumed that the Bay-Delta Accord criteria would be the long-term plan for the Delta. If in-stream flows provided by the other water rights holders increases, some portion of the Ecosystem Restoration Program environmental flows could be satisfied by this water rights process, which may reduce amount of water that the Program needs to acquire from willing sellers." In this situation, it is not clear whether the CVP and SWP would gain any additional water supply that would be available if other water rights holders are required to provide a portion of the WQCP flows. Currently, the CVP and the SWP are meeting all of the WQCP flow requirements until the SWRCB allocates final responsibilities. In various places the draft PEIS/EIR clearly points out that the Ecosystem Program water for instream flows and Delta outflow targets are available only for environmental uses, and that Ecosystem Restoration water would not be exported by the CVP or SWP. Therefore, the draft PEIS/EIR leaves open the possibility that the ERP, and not the projects, would acquire the water provided by other water rights holders. This may be inconsistent with state law.

- *PEIS/EIR. Chapter 5 and Attachment A.* Criterion A includes the assumption of additional prescriptive Delta actions above the Baseline Operation Criteria. These actions are described

as Delta Environmental Protections. No scientific basis is provided to substantiate the assumed benefits of these actions. These actions include additional restrictions on CVP and SWP operations, which may have a severe impact on water supply. Further, given large investments in other program components designed to improve environmental conditions, the need for additional actions is questionable.

Assessment Methodology is Questionable

- *PEIS/EIR, Chapter 6.1 (Fisheries and Aquatic Ecosystems), Section 6.1.4 (Assessment Methodology).* Metropolitan questions whether CALFED's science is the best available since the draft PEIS/EIR does not utilize recent published studies. In addition, Metropolitan questions how X2 can differentiate significant impacts within 1km. It would aid in the analysis if the DEFT report results could be disclosed. As the preparers of the draft PEIS/EIR are aware, there is scientific disagreement, i.e., other scientific theories and explanations for fishery behavior other than what has already been presented in the draft PEIS/EIR. To comply with CEQA, these other theories and explanations need to be disclosed. In addition, the draft PEIS/EIR needs to give an indication of the effect on the impact evaluation that these other theories and explanations would have on the draft PEIS/EIR conclusions.
- *PEIS/EIR, Chapter 6.1 (Fisheries and Aquatic Ecosystems). Page 6.1-15, first paragraph, third sentence.* The draft PEIS/EIR should disclose the hypothetical relationships and justify their use in setting the direction and content of CALFED's program.
- *PEIS/EIR, Attachment A Page A-26.* The draft PEIS/EIR should disclose the rationale behind the Alternative 3 assumptions for item 3, isolated facility diversions, under criteria A and B, as their disclosure is not apparent.
- *PEIS/EIR, Attachment A Page A-27.* The draft PEIS/EIR should disclose the rationale behind the Preferred Program Alternative assumptions for item 3, Hood diversions, under criteria A and B, as their disclosure is not apparent.

Uncertainty of Interactions Between Program Elements

The Linkages Between the Program Elements are Weak and Appear to Have Been Developed Independently Rather Than in Unison

- *Comprehensive Monitoring Assessment and Review Program Report.* The draft PEIS/EIR should provide an explanation of how CMARP is to be integrated with the ERP (or the other CALFED programs), as there is no effective linkage shown between the ERP and CMARP programs in the documentation. The potential Stage I activities of CMARP (pages 151-152, Revised Phase II Report) do not mesh well with the potential ERP actions for Stage 1 (pages 11-14, Draft Implementation Plan). Explain how CMARP science will be brought to the ERP, but at a programmatic, implementation or budgetary level, as CMARP and ERP appear to be on separate tracks based on the documentation. Also, the draft Implementation Plan (pages 29-40) shows $38.3 million for unspecified science and monitoring (both in ERP and CMARP). The draft PEIS/EIR should provide an explanation of what this funding would cover and produce.
- *Ecosystem Restoration Program Plan.* The draft PEIS/EIR should provide clearer documentation of the consistency between the ERP and MSCS.

- *Ecosystem Restoration Program Plan.* The draft PEIS/EIR should provide integration of Delta water project operations and the ERP.
- *Implementation Plan (Finance Section). Page 100, fourth paragraph.* Metropolitan agrees that the benefits of water quality actions can sometimes be measured by avoided treatment costs and health impacts. Unfortunately, that is not true of the water quality actions proposed in Stage 1, most of which will benefit the ecosystem.
- *Implementation Plan (Finance Section). Page 105, fourth issue.* The technical analysis in the draft PEIS/EIR does not support the establishment of a water user fee for ecosystem storage.
- *Implementation Plan (Finance Section). Page 131, beneficiaries.* Watershed Management Program (WMP) actions have not been developed in sufficient detail to determine whether they will provide water quality or supply reliability benefits to Delta exporters.
- *Water Quality Program Plan.* Linkages of the Water Quality Program to other program areas are weak; i.e., linkages to ecosystem restoration and water use efficiency are not apparent.

Governance, Decision-Making, and Finance Elements of Program Lack Adequate Definition

- *Implementation Plan (Finance Section).* Diversion fees assessed to water users can only be supported if they are linked specifically to tangible benefits and are part of a broad, wide-ranging plan that also includes public financing. The draft finance plan appears to single out water users – particularly *urban* water users – as the source of "deep pockets" that CALFED will tap liberally for the majority of long-term funding. This is true even for programs that may provide broad-based, public benefits, regardless of how much (or how little) water users stand to benefit. For instance, the draft finance plan identifies a Delta diversion fee as a potential funding source for various elements of the CALFED Program, including environmental storage, the portion of conveyance facilities dedicated to the ecosystem, and the ecosystem portion of the common programs. Unfortunately, the analysis in the draft PEIS/EIR does not demonstrate that water users will benefit from these programs. To justify water user funding for these programs, CALFED must provide regulatory assurances that protect water users from additional negative impacts on their water supplies due to Endangered Species Act listings or other regulatory actions.
- *Implementation Plan (Finance Section).* All beneficiaries of the CALFED Program should bear an equitable share of program costs. Although CALFED has in the past supported the development of a broad, wide-ranging plan incorporating all types of user fees and public financing, the draft finance plan focuses almost exclusively on water user fees. The plan does not discuss commercial and recreational fishing fees, even though one of CALFED's Ecosystem Restoration Program goals is to "maintain and enhance populations of selected species for sustainable commercial and recreational harvest." CALFED should expand the draft plan to include fees on all users of Bay-Delta resources that will benefit from the program.
- *Implementation Plan (Finance Section). Page 99, third paragraph.* Metropolitan agrees that some CALFED actions are not amenable to traditional cost allocation procedures. However, it

does not logically follow that CALFED should not attempt to measure benefits for those portions of the Program with a large percentage of public benefits unless CALFED intends to fund those portions of the Program solely with state and federal funds. CALFED must make a serious effort to quantify the benefits of its actions to each beneficiary group.

- *Implementation Plan (Finance Section). Page 100, third paragraph.* The draft Plan suggests that benefits should be measured as the difference between benefits that would occur with the Program compared to the benefits that would occur without the Program. Given the range of uncertainty about future conditions assumed in the draft PEIS/EIR, how does CALFED intend to apply this principle?
- *Implementation Plan (Finance Section). Page 104, cost-sharing options.* The appropriate vehicle for funding the portion of storage dedicated to M&I and agricultural uses (net of flood control, recreation, environmental and other storage benefits) will depend, in part, on who benefits from the storage (SWP users, CVP users, or other water users).
- *Implementation Plan (Finance Section). Page 105, first paragraph.* Water users should not be required to pay O&M costs for storage or portions of storage dedicated to other uses, such as ecosystem restoration.
- *Implementation Plan (Finance Section). Page 105, third issue.* Given the ability of the CALFED agencies and other stakeholders to challenge or block storage projects, would the proposed "share the risk" policy be equitable?
- *Implementation Plan (Finance Section). Page 127, funding options.* The draft Plan should include a third option – all public funding.
- *Implementation Plan (Finance Section). Page 143, last paragraph.* The Phase II Report envisions a substantial role for the Legislature in the process for making decisions about future actions to meet CALFED's long-term public health protection objectives. Why, then, is authorization from the Legislature presented as a disadvantage in the context of Program funding? Legislative and voter approval would serve as an important indicator of the public's willingness to pay for public benefits, and should be therefore pursued, not avoided.
- Implementation Plan (Finance Section). Page 145, fourth paragraph. The draft Plan appears to limit the diversion fee to instream diverters and Delta exporters. Does CALFED proposes to exclude groundwater users and in-Delta users? If so, what is the rationale for this proposal?
- *Implementation Plan (Finance Section).* CALFED must strive to quantify benefits to each identified beneficiary group. In order to secure buy-in to CALFED's beneficiaries-pay principle, each beneficiary must be shown identifiable, tangible, and quantifiable benefits in each of the program areas that "beneficiaries" are expected to pay. Using the Water Quality Program as an example, we expect CALFED to demonstrate, to urban water users as a potential beneficiary expected to pay, the level of reduction in parameters of concern, such as bromide and total organic carbon, that would result from the proposed actions. This "benefit" could then be valued at treatment costs avoided or other measures of willingness to pay.
- *Implementation Plan (Finance Section).* CALFED does not differentiate between general public benefits and water user benefits. Throughout the draft finance plan, CALFED proposes to rely on water user fees to pay for programs that provide public or environmental

benefits. While a broad-based user fee may be appropriate in some instances, it is not a surrogate for public financing sources such as federal and state appropriations, G.O. bonds, etc. CALFED should not shy away from these public financing mechanisms simply because they would require voter approval. On the contrary, a voter approval process would legitimize the public's willingness to pay for public benefits such as ecosystem restoration and a healthy environment. The draft finance plan frequently references the 1996 Business Leaders' Report on Financing as justification for a diversion fee to fund the portions of the CALFED Program that provide broad-based public benefits. The 1996 Report did identify a diversion fee as an option for funding public benefits, but only to the extent that G.O. bonds or other appropriate public financing sources are not forthcoming. The Report specifically identified ecosystem restoration as a public benefit that may be appropriately funded with general tax revenues. The more appropriate role of the diversion fee, as described in the Report, would be to fund projects or actions that provide so-called "common property" benefits, i.e., benefits that accrue to identified groups of resource users, but from which individual users cannot be excluded. The draft Finance Plan does not appear to recognize this distinction, and instead seems to view the diversion fee simply as a convenient source of funding not linked to any specific water user benefits.

- *Implementation Plan (Finance Section).* Proposed Water Use Efficiency Program (WUEP) funding options do not provide adequate financial incentives for projects that are not locally cost effective. Three of the four options proposed for funding WUE measures would limit public funding, either entirely or to a great extent, to those projects that improve water quality or produce water for the environment. Metropolitan is concerned the proposed options will be ineffective in helping CALFED reach its very ambitious water conservation and recycling goals. The draft PEIS/EIR projects that CALFED could, through its WUEP actions, more than double the amount of urban conservation and recycling than would otherwise occur. Achieving this goal -- if indeed it can be achieved -- will require the implementation of water conservation and recycling measures that are not locally cost-effective. The funding options proposed in the draft Finance Plan would not, except in a few isolated cases, provide urban agencies incentives to implement these more expensive projects.

- *Implementation Plan (Finance Section).* CALFED must demonstrate its Program is more cost-effective to "buy into" than for agencies to seek their own alternative solutions. Metropolitan's member agencies hold Metropolitan as an urban water provider accountable for providing a reliable water supply of the highest quality in the most cost-effective manner possible. Metropolitan supported CALFED because it was believed that this Program offered the best opportunity to resolve Bay-Delta issues while helping Metropolitan to achieve its reliability and quality goals. CALFED needs to demonstrate that its Program indeed provides the value that Metropolitan can responsibly pay for and receive.

- *Implementation Plan (Finance Section).* CALFED must be consistent in applying policies in the draft finance plan. There are many inconsistencies in the draft finance plan as illustrated below:

  - The draft plan requires beneficiaries to pay the full cost of planning, design, construction, and operations and maintenance of some types of facilities. But this is not true for other types of facilities, particularly where CALFED believes it needs to court local support, e.g. groundwater storage. CALFED must address this apparent contradiction.

- CALFED seems to legitimize "ability-to-pay" issues for levee work but insists all water users must pay the full cost of new supplies. CALFED must disclose what criteria are being used in applying these broad policy principles.

The draft finance plan introduces a "polluters-pay" concept as a financing option for the Water Quality Program. However, the Ecosystem Restoration Program has not been identified as a potential "polluter" that could degrade drinking water quality. The WQP Appendix notes the restoration and creation of wetlands under the ERP could increase organic carbon and bromide concentrations in Delta water (page 3-8). Assuming that research confirms the suspected link between proposed ERP actions and drinking water quality degradation, how does CALFED propose to mitigate for this effect? This issue has implications for how the WQP is funded.

- Implementation Plan (Finance Section). Page 118, third paragraph. The last sentence of this section suggests that for those projects that provide public benefits (e.g., projects that increase dedicated instream flows), CALFED will pay for only that portion of the project that exceeds the local cost-effectiveness test. We are unclear why an urban agency would enter into such an arrangement. An argument could be made that the agency would receive some benefit from the transaction by replacing a less reliable water supply with a more reliable supply; however, it is not clear this benefit would be sufficient to induce an urban agency to contribute funding to a project that increases water supplies for the ecosystem, rather than its own ratepayers.

- *Implementation Plan (Finance Section). Page 123, option 3.* The draft PEIS/EIR quantifies only those water transfers projected to occur through the ERP, i.e., public transfers. Providing public funding for the Clearinghouse is therefore appropriate, unless it can be affirmatively demonstrated that the Clearinghouse will improve the ability of willing buyers and sellers to transfer water. If CALFED elects to impose a surcharge on buyers and/or sellers to help fund the Clearinghouse, then that surcharge must apply to transfers for in-stream purposes, including transfers that occur through the ERP and the Environmental Water Account (EWA).

- *Implementation Plan (Finance Section).* The technical analysis in the draft PEIS/EIR does not support the benefits analysis in the Finance Plan, particularly in the areas of supply reliability and water quality. According to the draft PEIS/EIR, the reliability of Delta water supplies may decrease substantially in the future whether or not the preferred alternative is implemented. This conclusion, if correct, does not support the draft finance plan's claim that the Ecosystem Restoration Program (ERP) and Watershed Management Program (WMP) would increase water users' supply reliability. The analysis presented in the draft PEIS/EIR and WQP Appendix also does not support the draft finance plan's assertion that the WQP, or other common programs, will provide public health benefits or reduce salinity levels for M&I water users. The Water Quality Program (WQP) Appendix indicates that WQP actions will minimally affect bromide levels, particularly for SWP users, and will not reduce salinity resulting from seawater intrusion. Actions to control San Joaquin River salinity levels are described in the Appendix as having limited long-term sustainability. The Appendix suggests that organic carbon might be subject to control by drainage treatment, if the technology can be proven and if it can be made economically feasible; however, only pilot-scale drainage treatment projects are proposed for Stage 1.

- *Implementation Plan (Finance Section).* Urban water conservation and recycling projects also provide public benefits. Metropolitan disagree swith the draft plan's suggestion that the public benefits from WUE measures occur only in those cases when the measures improve Delta water quality or produce water that is dedicated to the ecosystem. Through conservation and recycling, urban agencies have substantially reduced their total water demands. Metropolitan estimates its member agencies save more than 700,000 acre-feet of water annually through conservation and recycling programs. This is comparable to the average annual water demand of the city of Los Angeles and the city of San Francisco combined. Clearly, these water use efficiency efforts help reduce conflicts in the Delta system and provide a substantial public benefit.

- *Implementation Plan (Finance Section).* There must be a nexus between costs imposed by CALFED on urban agencies and both the rationale for and the ability to recover these costs through water rates. Urban water agencies are restricted to set water rates based on the costs of providing water supply services. Although CALFED may intend to influence water use behaviors and public values by increasing the price of water, water agencies cannot do this as a matter of law. CALFED must provide direct value in exchange for these costs. Water agencies must demonstrate a direct connection between the rates and charges they apply and the actual costs of providing water supply or water quality benefits in order for those charges to be legal.

- *Implementation Plan (Finance Section). Page 128, issue 3.* The analysis presented in the draft PEIS/EIR and WQP Appendix does not support the establishment of a fee on SWP or CVP exporters to fund WQP actions. The Water Quality Program (WQP) Appendix indicates that WQP actions will minimally affect bromide levels, particularly for SWP users, and will not reduce salinity resulting from seawater intrusion. Actions to control San Joaquin River salinity levels are described in the Appendix as having limited long-term sustainability. The Appendix suggests that organic carbon might be subject to control by drainage treatment, if the technology can be proven and if it can be made economically feasible (page 3-46); however, only pilot-scale projects are proposed for Stage 1.

- *Implementation Plan (Finance Section).* The draft-financing plan must account for the cost of re-operating the SWP and CVP to achieve new environmental purposes. The draft plan appears to assume that the SWP and CVP will not only continue to operate to meet both existing and new Delta standards, but will re-operate existing project facilities to support the Environmental Water Account. But accomplishment of these objectives means the projects will lose flexibility and the project contractors will incur additional risks due to deferred and make-up pumping. CALFED seems to have ignored the costs the projects and their contractors are incurring because of these new environmental purposes.

- *Implementation Plan (Finance Section). Page 108, last paragraph.* The Plan raises as an issue the fact that some conveyance improvements that benefit export water quality may not be beneficial to fish populations. A similar relationship exists between ecosystem restoration actions and export water quality, i.e., same restoration actions may not be beneficial for water quality. This issue should appear as an issue for discussion under the section on ecosystem funding.

- *Implementation Plan (Finance Section). Page 109, issue 3.* What is the rational for assessing a charge only on Delta exporters for conveyance improvements that provide general ecosystem improvements?

Editorial Changes/Corrections

- *PEIS/EIR, Chapter 2. Alternatives Descriptions, Page 2-16 (Relationship to the Interim South Delta Program).* Why is this discussion of the relationship of the DWR's ISDP to the Program's Conveyance element presented here and not in page 1-19 (Relationship with Other Ongoing Programs)?
- *PEIS/EIR, Chapter 5.1. Water Supply and Water Management, Page 5.1-25 (section 5.1.5), last paragraph.* Change "assess" to "access."
- *PEIS/EIR, Chapter 5.1. Water Supply and Water Management, Page 5.1-39 ,second paragraph, third sentence.* "Average February Delta (in)flow is approximately 190 TAF under the No Action Alternative and is generally about the same under Alternative 1." A review of the model studies shows that the 73-year average Delta inflow for the month of February is about 3.2 MAF.
- *PEIS/EIR Page 5.3-34*: In the third paragraph discussing the Preferred Alternative Consequences for San Joaquin Region, a reference is made to Table 5.3-5a that is for the Alternative 1 and not the Preferred Alternative. Hence, the values referenced in the text could not be found in that table. Revise the text and clarify.
- *PEIS/EIR Page 5.3-36*: There are comparisons of the anticipated bromide levels between Alternative 1, No Action Alternative, Alternative 2, and Preferred Alternative, but not for Alternative 3. Provide a comparison of all alternatives.
- *PEIS/EIR, figures 5.3-2. through 5.3-5.* The Preferred Program Alternative ranges from no Hood diversion to a 4,000 cfs diversion. However, figures 5.3-2 through 5.3-5 only shows the salinity range with a new diversion at Hood. Subsequent communications with CALFED staff indicated that the salinity range without a Hood diversion would be similar to that of Alternative 1 and represents a degradation in water quality. Thus, the figures presented in this section are misleading and seemingly show that the Preferred Program Alternative would improve water quality. These figures should be revised to present the full range of impact of the Preferred Alternative. In addition, the legend to figure 5.3-2 appears to be incorrect.
- *PEIS/EIR, page 5.3-39, Other SWP and CVP Service Areas*. The units for bromide concentrations are incorrect.
- *Implementation Plan*. In the discussions under "beneficiaries of the WUE program" on page 115 and 166 and the "Proposed Finance Options" for water recycling on page 118, a distinction is made between public benefits related to water recycling for municipal uses and water recycling for environmental uses. This discussion must be revised to eliminate this distinction and acknowledge that water recycling that offsets a demand on the Bay-Delta system has the same public benefit in the Bay-Delta system as water recycling for "in-stream or Delta uses." (Also see the discussions in the third paragraph on page 65 of the Phase II Report.)

- *Water Use Efficiency Program Plan (WUEPP).* The discussion beginning on page 2-6 appears to be directed at water conservation (and not water recycling) and should be identified accordingly.
- *Water Use Efficiency Program Plan (WUEPP).* The estimate for Stage 1 cost under item 9 on page 2-12 should be reconsidered in light of the changes to the estimates on page 159 of the Implementation Plan.
- *Water Use Efficiency Program Plan (WUEPP).* The third paragraph on page 6-1 should acknowledge that use of recycled water for irrigation and toilet flushing reduces the potential for conservation of potable water supplies through demand management. CALFED should include related numeric adjustments in the WUEPP.
- *Water Use Efficiency Program Plan (WUEPP).* The discussion in the fourth paragraph on page 6-7 should acknowledge that there is a significant difference of opinion between the SCCWRRS participants regarding existing levels of water recycling in southern California (see SCCWRRS Phase 1B Summary Report, Table 5.7-3).
- *Water Use Efficiency Program Plan (WUEPP).* The discussion in the first paragraph on page 6-9 improperly cites timing of supply and demands as being "the most crucial limitation to the amount of recycling ultimately realized" when it is one of several important factors. As discussed elsewhere in the DEIR/DEIS and in our comments, cost, public acceptance, salinity in wastewater and regulatory relief all are significant and the discussion should be revised accordingly.
- *Water Use Efficiency Program Plan (WUEPP).* The discussion of the San Diego Repurification Project in the second paragraph on page 6-10 should be modified to reflect the current status.
- *Revised Phase II Report (Phase II Report).* The discussions in the third paragraph on page 65 should acknowledge the significant impact of public acceptance and regulatory and legislative change on the potential to recycle wastewater.
- *Water Quality Program Plan Page 1-9, last paragraph.* The reader is left with the impression that all the water quality problems addressed in the Water Quality Program Plan are those problems identified on the California 303(d) list of impaired water bodies. This is not true for most of the drinking water parameters of concern (i.e., bromide, total organic carbon and pathogens), for which there are no regulatory-based ambient water quality objectives. As a result, the California 303(d) list does not fully reflect impairment of the drinking water beneficial use. In addition, CALFED should reference the 303(d) list that is discussed in the text and presented in Appendix B. Is CALFED referring to the 1998 California 303(d) list approved by the U.S. Environmental Protection Agency (EPA) on May 12, 1999?
- *Water Quality Program Plan Page 3-1.* The use of the term "salts" is inappropriate throughout the document. A salt is a crystal, and once a salt crystal is dissolved in water there are only dissociated ions in the water. It is more appropriate to discuss salinity levels in water in terms of total dissolved solids (TDS), a convenient measure of the salinity content of water. In addition, it is not appropriate to list TDS and salinity as separate parameters.

- *Water Quality Program Plan Page 3-6, second paragraph.* The discussion on Disinfection By-Products regulations must be corrected and updated. The Safe Drinking Water Act Amendments of 1996 directed EPA to set regulations that protect against microbial pathogens while simultaneously decreasing the occurrence of disinfection by-products (DBP). EPA promulgated the first stage of rules (Stage 1 Disinfectants/Disinfection By-Product (D/DBP) Rule and Interim Enhanced Surface Water Treatment Rule) in December 1998. These rules will be effective in December 2001. The Stage 1 D/DBP Rule lowers the maximum contaminant level (MCL) for total trihalomethanes to 80 µg/L, and sets MCLs for haloacetic acids (60 µg/L) and bromate (10 µg/L). EPA is required to promulgate the Stage 2 D/DBP Rule and Long Term 2 Enhanced Surface Water Treatment Rule by 2002. These rules are currently being negotiated, and it is anticipated that the Stage 2 D/DBP Rule may create more stringent standards for DBPs. In addition to the first two stages, it is possible that a third stage of DBP and microbial rules may be promulgated in 2006. The Stage 3 rules may further restrict DBPs, increase disinfection requirements and/or modify the current requirements regarding system-wide averaging for DBP compliance.

- *Water Quality Program Plan Page 3-7, Section 3.5.3 Treatment Control of Disinfection By-Products.* This section of the Water Quality Program Plan lacks detail and should be revised to include the following discussion, which presents a more thorough evaluation of the treatment options for controlling DBPs.

  Currently, most water treatment plants use chlorine as the primary disinfectant within the treatment plant. Many also use chlorine to maintain a disinfectant residual as the water travels through the distribution system. This practice ensures safety of the treated water as it travels to the consumer but forms elevated levels of chlorinated disinfection by-products (DBPs). A variety of alternative treatment processes are available which minimize the levels of DBPs that reach consumers. These treatment processes include chloramination, ozone, granular activated carbon adsorption, and membranes.

  Chloramines (the combination of chlorine and ammonia) can be used as an alternative to chlorine to provide a safe disinfectant residual within the distribution system. Because chloramines form lower levels of DBPs, replacing the long reaction times between chlorine and DBP precursors in the distribution system may reduce DBP levels that reach the consumer.

  Water utilities may also use "enhanced" coagulation to minimize DBP formation. Enhanced coagulation refers to the practice of using elevated coagulant doses to remove DBP precursors prior to reaction with chlorine. Under optimal conditions, enhanced coagulation can remove 30 to 50 percent of the organic DBP precursors and result in significant DBP reductions. However, the effectiveness of this treatment process is variable and highly dependent on the raw water quality. In addition, enhanced coagulation does not reduce bromide, an inorganic DBP precursor.

  One alternative to the use of chlorine for disinfection is ozone. Ozone is a strong disinfectant capable of inactivating most pathogens within short contact times. The use of ozone can also improve the aesthetic qualities of water including clarity, taste, and odors. Ozone (in place of chlorine) results in the minimal formation of chlorinated DBPs. Because ozone does not provide a lasting disinfectant residual, subsequent chlorination (or chloramination) is required which forms some DBPs. One drawback to the use of ozone is that it reacts with

bromide to form bromate. Although bromate is not currently regulated, it will be strictly regulated in the near future. Previous studies have shown that bromate formation during ozonation may be controlled through chemical addition of acid or ammonia. These bromate control strategies can significantly increase the overall cost of ozonation.

Granular activated carbon (GAC) can be used to remove both DBPs and DBP precursors. GAC acts as an adsorbent, removing many organic compounds. Once the GAC adsorption capacity is exhausted, it must be regenerated within a furnace. Typically, this requires that GAC be shipped off-site to a regeneration facility. As would be expected, GAC has relatively high capital and operating costs.

Recent developments suggest that the use of membrane processes, such as reverse osmosis or nanofiltration, may provide a viable method for controlling DBP precursors. Membranes can remove both organic precursors and bromide ion which both contribute to DBP formation. Additionally, these membranes provide excellent pathogen removal. Drawbacks associated with the use of membranes include the need for extensive pre-treatment to minimize membrane fouling and the difficulty in disposing of the brine waste stream (which results from separating the dissolved material from solution). These concerns result in the relatively high current costs for membrane treatment. Other membrane processes such as microfiltration and ultrafiltration provide excellent pathogen removal but do not reduce DBP precursors to a substantial degree. However, as these processes provide increased pathogen removal, they may contribute to decreased disinfection requirements resulting in less DBP formation.

- *Water Quality Program Plan Page 3-9, fifth paragraph.* Organic carbon impacts the treatment process in two additional ways. It is believed that by adhering to particulate matter (organic and inorganic) pathogenic organisms can gain protection from disinfectants. More importantly, oxidative disinfectants do not preferentially attack pathogenic organisms. As a result, the more organic matter in the water the more disinfectant required to kill the pathogens, as some of the disinfectant is spent oxidizing the non-pathogenic organic matter.

- *Water Quality Program Plan Page 3-12 to 3-32.* The presentation of the water quality actions is confusing and it is difficult for the reader to understand what the priority actions are that CALFED intends to implement early in Stage 1. The description of many of the actions, information needs and existing activities is vague and open-ended, and the distinction between a priority action and information need is not clear. CALFED should develop explicit linkages between priority actions, information needs and existing activities. In addition, it is difficult to trace the priority actions, needs and existing activities in this chapter to the actions listed subsequently in Chapter 12 and Appendix C of the Water Quality Program Plan, and in the Implementation Plan Appendix to the PEIS/EIR. CALFED should develop distinct identifying codes for each action in Chapter 3, which are carried through and used whenever the action is referenced in other chapters and documents.

- *Water Quality Program Plan Page 3-32, Capacity for Reducing Bromide and Organic Carbon Through Water Quality Program Actions.* The section of Chapter 3 presents an important analysis of the effectiveness of Water Quality Program actions in achieving water quality improvement for Delta drinking water supplies. CALFED must provide references for all water quality data presented, and must provide information regarding modeling assumptions and limitations of the methods used to perform the analyses.

This attachment is referenced in the Comment regarding the Draft PEIS/EIR, Page 6.1-15, third paragraph, second sentence in Enclosure 2 to the Metropolitan's comment letter.

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